S. HRG. 98-247

EXTENDING AND AMENDING THE CLEAN WATER ACT

HEARINGS

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

FIRST SESSION

ON

S. 431

A BILL TO AMEND THE CLEAN WATER ACT, AS AMENDED, TO AUTHORIZE FUNDS FOR FISCAL YEARS 1983, 1984, 1985, 1986, AND 1987, AND FOR OTHER PURPOSES

S. 432

A BILL TO AMEND THE CLEAN WATER ACT TO EXTEND THE 1984 COMPLIANCE DATE FOR RECENTLY ESTABLISHED REQUIREMENTS

APRIL 6, 7, 14, AND JUNE 14, 1983

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EXTENDING AND AMENDING THE CLEAN WATER ACT

WEDNESDAY, APRIL 6, 1983

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION,
Washington, D.C.

The subcommittee met, at 10:05 a.m., in room SD–406, Dirksen Senate Office Building, Hon. John H. Chafee (chairman of the subcommittee) presiding.

Present: Senators Stafford, Chafee, Randolph, and Mitchell.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. We want to welcome everyone to this hearing of the Subcommittee on Environmental Pollution.

This is the first of 3 days of hearings on the Clean Water Act and the reauthorization of the same. As most people know, the Clean Water Act was extensively considered by this subcommittee last year. We held some 5 days of hearings. Issues were discussed and clearly out of those hearings came a consensus that the act essentially was sound and that it did not require extensive changes to it.

I expect that the subcommittee this year will recommend a multiyear reauthorization to the full committee with amendments that will strengthen the act.

I look forward to the assistance of our fellow members on this subcommittee.

One of the witnesses we had last year was Lou Harris, the head of the polling firm—well known here—and Mr. Harris brought out very clearly, after taking a nationwide poll, that Americans want clean water and they are willing to pay for it. It is easy to ask people: Do you want to have clean water? Yes, everybody says that, but Mr. Harris' poll was not as simple as that. He made it very clear that the cost of having clean water might be the loss of some industry, it might require higher real property taxes, income taxes, other State taxes, but the respondents to that poll overwhelmingly replied that they were prepared to accept the down side of it because they were seeking clean water, and were willing to pay for it.

I am going to ask that Mr. Harris' statement be made part of this year's record. (See p. 50.)

Senator Randolph and I have introduced legislation, S. 431, that extends the Clean Water Act for 5 years. It also restructures the

industrial compliance schedule in line with the timetable given EPA by the court to issue the necessary guidelines to industry for bringing about compliance. Senator Randolph has introduced legislation (S. 432), that goes slightly beyond this timetable, and I expect that the subcommittee will be able to come up with an agreement that will satisfy the both of us and provide a cost effective compliance timetable for industry with the goal, of course, being to reduce toxic pollutants being discharged into our water.

We need to do more than this, in my judgment. We have to make some decisions about where we go from here with the clean water program. Some stream segments around the country will not achieve the water quality goal of the act even with the implementation of the BAT. What do we do about these streams? What is our strategy beyond BAT? Many stream miles will not be as clean as they should be because of nonpoint source pollution as a further problem. How do we deal with this?

As you know, so far we seem to have put the nonpoint pollution on the back burner. Do we study it more or do we move to control it? Pretreatment will be a big issue before us. S. 431 includes carefully drafted provisions which allows for modification of a municipal permit to allow for a local pretreatment program under certain conditions. Will this work? Is this the best approach to pretreatment? Should the law be changed at all?

All these are questions that I hope we will have answered during our hearings. The bill that comes out of the subcommittee should map our strategy of where the clean water program is going for the next decade. There is a momentum in this program and certainly we should take advantage of it.

Senator Stafford has been delayed and should be arriving soon, I will put his statement in the record at this point.

[Senator Stafford's statement follows:]

OPENING STATEMENT OF HON. ROBERT T. STAFFORD, U.S. SENATOR FROM THE STATE OF VERMONT

Senator STAFFORD. Thank you Senator Chafee. It is a pleasure to be here. My remarks are brief because the subcommittee has a great deal to cover during these 3 days of hearings.

As my colleagues know, I have had a strong interest in the Clean Water Act over the years. It is a good and sound law.

But no program is perfect, of course, and I am interested in what witnesses will have to say.

I hope that anyone who comes before us to request relaxation of the act's requirements will explain his proposals well, for the burden of proof is on those who would change the present law.

Certainly the American public will not support weakening amendments. One public opinion poll after another has shown resounding support for the clean water program.

If anything, the public wants the act stronger, not weaker.

Mr. Chairman, this concludes my opening remarks. As I said, it is a pleasure to be here. I will attend as much of the time as my schedule permits and, with your permission, provide followup questions in writing to some of the witnesses that I am unable to speak with directly.

Senator CHAFEE. I welcome the very distinguished ranking member of the full committee, Senator Randolph. And I believe you have a statement, Senator.

OPENING STATEMENT OF HON. JENNINGS RANDOLPH, U.S. SENATOR FROM THE STATE OF WEST VIRGINIA

Senator RANDOLPH. Thank you very much, Mr. Chairman.

Today, the Subcommittee on Environmental Pollution begins consideration of amendments to the Clean Water Act.

Months ago, Mr. Chairman, we met to begin hearings on this vital subject. I remember your statement. You said that the Clean Water Act was not in need of major changes, because it was fundamentally sound. I agreed with you then, and I agree with you now. The Clean Water Act, in place just over a decade, is working. It is in no need of substantial alteration.

We have several witnesses. I want them to have ample opportunity to speak. I will touch on a few subjects which are of particular interest to me as we consider amendments to the Clean Water Act.

The first is water quality standards. For nearly 10 years, Mr. Chairman, as we have periodically considered amendments to this act, we have recalled the act's objective and goal: the restoration and maintenance of the chemical, physical, and biological integrity of this Nation's waters and the provision of waters throughout the Nation capable of supporting fish and wildlife and recreation. Through the years the Environmental Protection Agency and the States have worked as partners in implementing the Clean Water Act. In 1972 EPA was directed to establish national technology-based effluent limitations and a national permit program on which they would be enforced. States where expected to develop water quality management programs for the waters within their borders, including the establishment of water quality standards. The States have demonstrated a better record than the Agency.

I believe that the water quality regulations revisions recently proposed by the Environmental Protection Agency are not in accordance with the Clean Water Act and are diametrically opposed to its objectives and goals. They give States less Federal direction in determining the use of a particular body of water. Under the new regulations, streams previously categorized by a State for fish and wildlife or other high quality use could be downgraded if the benefits of attaining the use are not concomitant with the costs of such attainment. I believe there is the danger that if States are permitted to downgrade their waters, industry will be able to "shop around" for areas in which water quality standards would be lower.

On March 14, Mr. Chairman, you and I, together with committee chairman, Bob Stafford, ranking Environmental Pollution Subcommittee member George Mitchell, and House Water Resources Subcommittee chairman, Bob Roe, sent a letter to then Acting Administrator Dr. John Hernandez. We asked him to withdraw the proposed water quality regulation revisions. Dr. Hernandez left the Agency before acting on this request.

I shall go into this matter further when the committee has hearings to consider the nomination of William Ruckelshaus to be the

new Administrator of the Environmental Protection Agency. If the proposed regulations are not withdrawn, it may be necessary to enact legislation clarifying the intent of Congress on this issue. Mr. Chairman, I ask that our letter be made a part of the hearing record at this point. I look forward to hearing testimony on this important matter.

[The letter referred to follows:]

U.S. SENATE,
Washington, D.C., March 14, 1983.

Dr. JOHN W. HERNANDEZ, Jr.,
Acting Administrator, Environmental Protection Agency,
Washington, D.C.

DEAR DR. HERNANDEZ: We are concerned about recent Evnironmental Protection Agency proposals to revise regulations governing establishment and revision of water quality standards under the Clean Water Act. The proposed revisions were published October 29, 1982, at 47 Fed. Reg. 49234.

The proposed regulatory changes go to the heart of the clean water program—our national commitment to the restoration and maintenance of the chemical, physical and biological integrity of the Nation's waters and to the goal that "wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983."

The "fishable/swimmable" goal, as it is usually called, was not intended to be a hollow promise when it was established in 1972. It is a goal that we take seriously. It must be achieved through the mechanism of water quality standards adopted by the States. Therefore, except where the "fishable/swimmable" goal is unattainable, water quality standards should be established to reflect that goal and the basic objective of the Act. This intent is carried out in sections 302, 303, and 316.

The proposed new regulations appear to substitute for the baseline water quality goal enacted by Congress a broad benefit/cost comparison test that easily could lead to downgrading of exisiting water quality standards. The water quality regulations revisions give States less Federal direction than the Clean Water Act requires for determining the use of a particular body of water. Under the new regulations, streams previously categorized by a State for fish and wildlife or other high quality use could be downgraded on the basis of a comparison of values which are exceedingly difficult to calculate.

Even though the new regulations, on their face, would not require any State to use the benefit/cost comparison test, there is a very real danger that if States are permitted to downgrade their waters, industry will be able to "shop around" for areas in which water quality standards would be lower. In addition, this analytical exercise would command personnel and financial resources that already are stretched too thin in many States.

We also are concerned that the new regulations would shift the emphasis from desired water quality to current water uses. In fact, in hearings before the Subcommittee on Environmental Pollution last July, EPA referred to "the Administration's view that pollution control requirements should be directly linked to the protection of the actual uses of the receiving water." Thus, existing "fishable/swimmable" standards for a particular segment could be downgraded on the basis, for example, that dangerous currents or barge traffic preclude swimming.

Also, the proposed regulations drop existing requirements that current water quality levels not be degraded and that States upgrade water quality standards where actual uses exceed those designated in the standards. These revisions are diametrically opposed to the objective and goal of the Act.

The proposed regulations have generated substantial controversy because, whatever EPA's intent, they give the appearance of retreating from our commitment to the central objective and statutory water quality goal of the Clean Water Act.

We urge you to withdraw the proposed regulations. Withdrawal of the proposal for further study would be a clear signal that the Agency is committed to fulfilling its Congressional mandates and to the goals of the Clean Water Act. This might also avoid the need for the Committee to consider corrective legislation with regard to the proposed water quality standards regulations.

We wish you well in your management to the Agency, and hope you will give serious attention to this urgent suggestion.

Sincerely,

ROBERT T. STAFFORD,
Chairman, Committee on Environment and Public Works.
JENNINGS RANDOLPH,
Ranking Minority Member, Committee on Environment and Public Works.
JOHN H. CHAFEE,
Chairman, Subcommittee on Environmental Pollution.
GEORGE J. MITCHELL,
Ranking Minority Member, Subcommittee on Environmental Pollution.
ROBERT A. ROE,
Chairman, Subcommittee on Water Resources.

Senator RANDOLPH. On the extension of the Clean Water Act compliance deadlines, I am on record as being fully in support of such extensions. They are essential to permit most industries to gear up to meet effluent limitation guidelines so tardily issued by the Environmental Protection Agency. Both bills before us contain provision extending these deadlines. Compliance extensions are crucial for the 17 industrial categories for which guidelines have not been issued. They are no less essential for an industry such as the steel industry, for which final guidelines were issued last May. While 3 years would be sufficient for many industries, the steel industry will not be able to meet the July 1984 deadline for best available technology because there is not enough time for the design and construction of facilities to meet the iron and steel standards.

I have been accused of being parochial, Mr. Chairman, in my support of extended compliance time for the steel industry. If it is parochial to try to attain reasonable requirements for an industry so vital to the economic welfare of this Nation and its people, then I plead guilty. The bill I have introduced, S. 432, extends deadline compliance for many industries. All best available technology deadlines for toxic and applicable nonconventional pollutants are extended, as are best convention technology deadlines for conventional pollutants. Deadlines for best practicable technology, a minimum requirement for nonconventional pollutants, are extended, but only for those effluent guidelines issued after January 1, 1982. Extensions are also available for best engineering judgment permits, which are issued for pollutants for which guidelines have not yet been established, when such permits have only recently been issued. Extension of these deadlines is essential to American industry as a whole, if we wish to achieve the goals of the Clean Water Act while allowing industry to comply with its requirements as expeditously as is possible. Deadline extensions are commonsense.

I touch on the issue of pretreatment. The bill I have introduced does not address this specific problem but I look forward to working with other members of the committee in developing language which will deal with the problems being encountered by industries in which diverse manufacturing operations require the application of more than one categorical pretreatment standard. Such indus-

tries are faced with severe practical problems in complying with such standards, particularly when they are issued by the Environmental Protection Agency at widely different times.

I have not made a hard decision on the best approach to this problem. I think it may be appropriate to incorporate into the Clean Water Act a designation of an integrated facilities category, which could be defined as a facility in which more than one waste stream is subject to categorical standards, issued at different times, entering a publicly owned treatment work. Compliance with pretreatment standards for such a facility would be mandatory within 3 years after promulgation of the categorical standard applicable to such an integrated facility.

This specific problem is affecting the automotive manufacturing industry, as well as other industries. I insert into the record at this time a letter I recently received from the General Motors Corp. on this issue. I look forward to hearing testimony from this corporation.

[The letter referred to follows:]

GENERAL MOTORS CORP.,
March 2, 1983.

Hon. JENNINGS RANDOLPH,
U.S. Senate,
Washington, D.C.

DEAR SENATOR RANDOLPH: We appreciate your efforts to assure continued progress toward the goals of the Clean Water Act. The legislative initiatives in your bill, the Clean Water Compliance Date Extension Act of 1983, confirm the fact that compliance extensions many times provide the most acceptable form of relief when unintended hardships result from the original compliance requirements of statutes.

Your introductory message is significant to us because it clearly highlights a compliance problem facing many industrial facilities. These are the ones having "integrated" wastewater discharge operations, i.e., those that combine all separate sources of wastewater discharges into a single, combined wastestream. Unfortunately, as you pointed out, the current law requires a separate "pretreatment" standard for each separate category of wastewater discharge in these major industrial facilities—independently of whether they are combined or "integrated" into a single wastestream at a later point in the treatment system.

Your solution—a separate category and standard for "integrated" facilities—would enable each such facility to comply with its applicable categorial pretreatment standards within a predictable time frame by a one-time installation of new equipment designed to treat the facility's combined wastestream in the most efficient and economical manner. The current law, on the other hand, would mean that each industrial complex would be confronted with the need to reassess new potential equipment installations each time a new standard is promulgated for each separate category (source) of wastewater discharge at the facility.

While it would cost us an estimated $350 million to meet the current law at 101 separate facilities having integrated operations, we estimate that your change in compliance requirement would reduce our cost for new equipment by one-half, with no significant adverse effect on water quality. It would also permit us to install this equipment while most of the facilities continue to operate under wastewater discharge requirements imposed by their local sewer ordinances. For these reasons, we support your solution to this problem as described in the Congressional Record of February 3, 1983, page S. 1011.

With you, we believe that such a compliance adjustment will have to be accomplished through legislation. While there is some legal question as to whether legislation is the only way this solution can be achieved, it appears clear, at this time, that an administrative resolution of the problem is not likely to occur. This is so, I understand, because the Consent Decree between the Natural Resources Defense Council and the Environmental Protection Agency is being interpreted as a limitation on the Agency's capability to establish an Integrated Facilities Category.

Again, we appreciate your continuing efforts to achieve clean water in our nation. We also support your effort to modify compliance requirements which would other-

wise impose unintended hardships. We pledge our support to help achieve the integrated facilities pretreatment solution you proposed.

Sincerely,

JAMES D. JOHNSTON.

Senator RANDOLPH. Mr. chairman, this completes my prepared opening statement. I look forward to the testimony from these 3 days of hearings and to working with you to put together meaningful and needed amendments to the Clean Water Act as expeditiously as possible.

Senator CHAFEE. Thank you very much, Senator Randolph. I think the fact that both of us agree that the act is essentially sound and will not require extensive changes is a tribute to the work that you did as chairman of this full committee in 1972 and thereafter when that act under your leadership and that of Senator Muskie, became the law of the country. I think you should take great pride in what you accomplished for the Nation in the 1972 act and I appreciate your continued interest and contributions in this whole area.

Senator Mitchell.

OPENING STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Senator MITCHELL. Thank you, Mr. Chairman.

I am pleased to join you and Senator Randolph hearing and evaluating testimony of the witnesses that will be before us today.

I join both you and Senator Randolph in the view that the Clean Water Act is basically sound and effective and necessary legislation, that our objective should be to further the principles underlying the act by making it more effective.

I know that is your intention having discussed that with you on many occasions.

I look forward to the testimony today and in the coming days. There are some areas of difference regarding the means to achieve that end, but I think by and large there is a clear national consensus in support of a strong and effective Clean Water Act.

Along with Senator Randolph, I have another important committee meeting to attend at the Veterans' Affairs Committee, that is hearing a major piece of legislation today. I will not be able to stay for the entire proceeding.

Senator RANDOLPH. Do you want me to go with you? That is where I was supposed to be.

Senator CHAFEE. We don't want you both to leave. We would just as soon have you both stay.

Senator MITCHELL. I would be pleased to have you join me there at any time you deem it appropriate. I want to apologize to those witnesses who will testify during my absence, but I will assure them we will review their testimony and consider it as much as if we were here. I know the chairman will be here holding down the fort.

Senator CHAFEE. Thank you very much, Senator Mitchell, and I want to publically express my appreciation for your deep and continuing interest in this whole clean water business.

The administration will have no witnesses today. Witnesses from the administration will come forward following the confirmation of

Mr. Ruckelshaus, that is should Mr. Ruckelshaus receive the approval of the committee and of the Senate, be fully confirmed, then a short time thereafter the administration will come forward with some ideas for the Clean Water Act.

Second, I would like to say, this is the first opportunity I have had publically to say anything before this subcommittee about Mr. John Hernandez. Mr. Hernandez worked very closely with this committee in the whole area of clean water, but more particularly we dealt with him on the municipal waste treatment part. I want to publically take this opportunity to commend Mr. Hernandez for his work. In all my dealings with Mr. Hernandez I found a very honorable, constructive gentleman and it was a pleasure to work with him and we shall miss him. I want to wish him Godspeed for whatever future undertakings he might have.

Whether he is returning to New Mexico or not I do not know but my experiences with Mr. Hernandez were very fine ones.

Our first witness is Mr. Russell Peterson, president of the National Audubon Society.

Mr. Peterson, if you will come up; former Gov. Harold Jensen, director of environmental conservation and environmental control of Warner-Lambert Co., if you will come up to the table, too. Then we will have both of you present your statements and it will give us a chance to talk with both of you while you are here.

Mr. Jensen representing industry's viewpoint, Mr. Peterson representing the environmental point of view, although we would hope there is not a conflict between the two viewpoints—although that hope may be in vain.

I want to alert the witnesses to what our plans are. We have this panel and then we have a panel on Federal common law and then Mr. Jon Olson alone. It will be my suggestion that—everything subject to a little variation—I want to conclude these hearings by 12:30, I am leaving a little slack time here. We have 30 minutes on this panel and if each witness will restrict his statement to about 8 or 9 minutes, the entire statements will be included in the record. Then that will give us a chance to ask questions. Then we will spend 40 minutes on the common law panel, about 15 minutes with Mr. Olson and that gives us a little slack because I find no matter what time limits we set on these they never come out on the short side.

Mr. Peterson, we welcome you and please proceed. We will put your full statement in the record so if you want to excerpt from it, Governor, that will be fine.

STATEMENT OF RUSSELL PETERSON, PRESIDENT, NATIONAL AUDUBON SOCIETY

Mr. PETERSON. Thank you, Mr. Chairman, Senator Mitchell, we appreciate very much the opportunity to come here today.

I am appearing on behalf of the National Audubon Society and its 500,000 members from around the country. We have been working very closely with many other environmental groups and other public interest groups toward cleaning up our national waterways. I certainly need not remind you that the achievement and maintenance of clear water remains a high priority of the American

public, you have expressed that very well a few minutes ago. As that poll you also referred to so clearly shows, the American public wants clean water even at some cost to the individual and believes that the Clean Water Act is an important and effective means of achieving that goal.

Decisions made by this session of Congress will have much to do with determining when the statute's goal of achieving fishable and swimmable water nationwide will be realized.

While there has been remarkable improvement in the quality of some of America's water in the 11 years since the original Clear Water Act was passed, much more remains to be done. The industrial population growth of the country in the last decade has put new pressures on our water quality and although the statute in its present form is enabling us to pretty much hold our own and prevent further degradation——

Senator CHAFEE. Could you hold on one minute, Governor. Senator Proxmire is to introduce some members of the following panel and in order to accommodate Senator Proxmire's schedule we are interrupting. He has come here to pay tribute and to introduce some Milwaukee witnesses and he has a very busy schedule. If you gentlemen just stay where you are, Senator Proxmire, why don't you pull up a chair and give your statement.

You know Governor Peterson, and Mr. Jensen is from Warner-Lambert, Senator Proxmire.

Senator, why don't you proceed then.

STATEMENT OF HON. WILLIAM PROXMIRE, U.S. SENATOR FROM THE STATE OF WISCONSIN

Senator PROXMIRE. Thank you very much, Mr. Chairman, I do appreciate this and I apologize for squeezing in and delaying the Governor and the other witnesses.

Thank you for giving me the opportunity to appear to testify on the subject of the Federal Common Law of Nuisance.

Inclusion of Federal common law language in the reauthorized Clean Water Act would overrule the U.S. Supreme Court's 1981 decision in *Milwaukee* v. *Illinois*—known as Milwaukee II—and might cost the city of Milwaukee up to $1 billion in extra pollution costs and subject it to water pollution standards higher than those imposed on any other U.S. city. Even worse, many other U.S. cities which discharge treated sewage into interstate waters could be subjected to standards far beyond the scope of the Clean Water Act.

In 1970, before there was a modern Clean Water Act, the State of Illinois sued the city of Milwaukee for polluting Lake Michigan with sewage. In the absence of a statutory remedy, the Illinois attorney-general invoked a seldom used legal theory—Federal Common Law of Nuisance, which was ratified by the Supreme Court in *Illinois* v. *Milwaukee* in 1974 known as Milwaukee I.

While the roots of this theory date back to a few cases in the early 1900's, the modern doctrine of Federal Common Law of Nuisance was very new. Under this new theory, the city of Milwaukee had to comply with an extremely burdensome court order drafted by the U.S. District Court judge who presided over the trial. The judge fashioned his own standards for the city's clean-up schedule,

which proved to be far stricter than those which would eventually be implemented for other cities under the Clean Water Act. But the standards were not just stricter, they were far, far costlier as well.

Therefore, the city, seeking equal treatment with all others, sued to replace its original court order with Clean Water Act requirements.

It was vindicated in 1981 when the Supreme Court in Milwaukee II said that Congress in enacting the Clean Water Act intended the act to be the sole form of Federal regulation for water pollution.

One effect of the district court judge's order was particularly draconian. Not only had he required Milwaukee to build sewage collection and treatment facilities much larger and more complex than Wisconsin and U.S. EPA required, but these extra standards were not reimbursable with Federal funds. Milwaukee would have to bear this extra expense itself.

If Federal common law is reinstated, other plaintiffs might be able to sue Milwaukee to require additional clean-up over and beyond the terms of its current EPA permit. And, other cities and industries might be placed in the same position. Instead of being able to rely on their EPA permits to immunize them from further requirements, mayors would constantly worry that a freak common law suit would subject their cities to unpredictable liability imposed case by case at the whim of Federal district judges.

Cases brought between the time of Milwaukee I and Milwaukee II underscore the wisdom of the Supreme Court's 1981 decision. Unfortunately, the first time the Supreme Court heard the case, in 1972, its decision supporting the existence of the common law doctrine laid down no clear guidance to be used by Federal courts in other Federal common lawsuits.

As often happens in the absence of statutory guidelines, the cases which followed fit no particular patterns. Some courts thought the use of the doctrine hinged on a finding of a discharge into interstate waters, others said it should be applied to any navigable waters while still others extended it even further.

Is this a pattern we want to repeat? If we uncritically reinstate the Federal common law without limitations, we might find that almost no municipal discharge permits are safe from second guessing by Federal courts. Almost any sewage treatment plant might be subject to entirely new, unforeseen and even inconsistent requirements.

I asked the CRS to examine this subject because of my concern that this committee might reinstate some blanket form of Federal Common Law of Nuisance as part of Clean Water Act reauthorization. I asked the researcher to look at the act to determine if there were ways to deal with the legitimate desires of the committee for a strong Clean Water Act while, at the same time satisfying municipalities and industries that their huge expenditures on pollution control would not be ignored.

According to CRS, under the Supreme Court's interpretation of Milwaukee II, the only appropriate role for Federal common law in environmental cases is to combat types of pollution which fall between the cracks in existing laws.

While other environmental laws may contain gaps suitable for filling with Federal common law, this is certainly not the case with activities for which there are Clean Water Act permits.

Aside from the usual permit terms, the Clean Water Act provides at least four ways to get at the kinds of behavior which might otherwise be the subjects of Federal common lawsuits. For example, section 402(a)(1) of the Clean Water Act allows permits to contain requirements for discharges even in the absence of specific guidelines if the Administrator determines they are necessary to carry out the provisions of the act.

Section 505(h) gives Governors the ability to sue the Administrator to protect their States from interstate pollution; section 510 allows States to be stricter than the Federal Government requires, and sections 402 (b)(3) and (b)(5) require permitting States to consult with other States whose waters may be affected by permit conditions.

Another alternative to inclusion of common law language would be to allow for more challenges to permit terms before permits become final.

If my colleagues find this comprehensive scheme inadequate to protect against all possible forms of water pollution, I urge them, instead of reinstating blanket common law language, to identify those areas where further protection is necessary. If municipalities and industries which have valid discharge permits can't rely on them to give immunity from suit as to their terms, let the committee declare this fact openly.

As the CRS article points out, if we merely reinstate Federal common law language without further qualifications we will open a pandora's box, the contents of which may harm rather than help the Clean Water Act.

While I oppose blanket insertion of common law language into the Clean Water Act, there may be a place for the doctrine in environmental law.

A recent article in the Harvard Journal of Environmental Law entitled "Environmental Regulation and the Federal Common Law of Nuisance: A Proposed Standard of Preemption" agrees with the CRS analysis and finds a need for the doctrine in cases of pollution where there is no remedy provided for by statute and for areas of environmental law less comprehensively regulated than water pollution.

Wisconsin is an environmentally minded State. We are one of the leaders in compliance with Clean Water Act requirements and our State government opposes weakening of Clean Water Act standards. To comply with strict State laws, Milwaukee's current permit requires the city to spend $1.6 billion to modernize and expand its sewage collection and treatment facilities and imposes a tight time schedule. In fact, Milwaukee will spend over $125 million on the cleanup project in 1983. And, Milwaukee taxpayers will pay at least $4,000 in sewer taxes on a $50,000 home to pay for water pollution control—assuming Federal and State aid remains constant.

If Congress decreases the level of sewer grants, the burden on Milwaukee homeowners is just that much worse. But, imagine

what the impact would be if the original common law court order were reimposed.

Adding Federal common law to the Clean Water Act scheme is an example of legislative overkill. If the Clean Water Act was not intended to preempt the field of Federal water pollution regulation, I ask my colleagues on the Environment and Public Works Committee to spell out where the act is deficient so that Milwaukee, and every other city, can plan ahead to know what standards apply to its situation.

Uncertainty about additional common law requirements may make cities unwilling to take on existing Clean Water Act burdens. Water pollution abatement programs are costly and long-term efforts. The threat of additional Federal common law requirements will undermine that effort and even weaken overall pollution control. I will oppose inclusion of any such language in the Clean Water Act which could subject Milwaukee and other cities to this extra cost and liability.

Mr. Chairman, I am joined right now by a man that I greatly respect and honor; he is almost perfect except he is a Republican.

Senator CHAFEE. That completes his qualification.

Senator PROXMIRE. This is Jim Sensenbrenner, whose district will be directly affected by this. And I appreciate it very much if he would have a chance to speak.

Senator CHAFEE. Senator, we will be glad to hear the statement of Congressman Sensenbrenner.

Senator Proxmire, if you would like to leave, I know you have other obligations.

Senator PROXMIRE. I appreciate that.

We have an outstanding expert here, Mr. Cutler, who is also a liability; he is like the chairman and this Senator, he is a further ally, but except for that he is a brilliant man and he knows this situation backward and forward, upside down and in-between.

Senator CHAFEE. He is on the panel.

Do any of the Senators have questions of Senator Proxmire?

Senator STAFFORD. I have no questions, but I have an opening statement that I would ask unanimous consent be placed in the record following yours.

Senator CHAFEE. I have already taken the liberty of doing so.

Senator Mitchell.

Senator MITCHELL. I have one question: Who was that Federal judge?

Senator PROXMIRE. I am not going to tell you his name, George.

Senator MITCHELL. I have to look it up.

Senator PROXMIRE. Frankly, I don't know.

Senator CHAFEE. I am sure Mr. Cutler will know.

Thank you very much, Senator Proxmire, for giving us that fine statement.

Senator PROXMIRE. Congressman Sensenbrenner.

STATEMENT OF HON. F. JAMES SENSENBRENNER, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WISCONSIN

Mr. SENSENBRENNER. Thank you very much, Mr. Chairman.

Mr. Chairman and members of the subcommittee, I appreciate the invitation to appear before you this morning during its consideration of S. 431. I have followed the Clean Water Act and related litigation for several years and the urgency for resolving certain questions about the law cannot be overstated.

I would like to take this opportunity to briefly share with the subcommittee my concerns over the possibility of inserting Federal common law into the Clean Water Act. I also will submit a more complete statement for inclusion in the Congressional Record. While legislative efforts to overrule the Supreme Court in *Milwaukee* v. *Illinois* do have serious implications for the city of Milwaukee, my objections to permitting common law to exist alongside the Clean Water Act are not limited to the economic consequences of this parochial case.

As Members of Congress, we all can appreciate the goals of the environmental laws we have enacted. Passage of the Clean Water Act demonstrated that Congress believes that to insure compliance, vital components of any pollution control law must be clear; uniform standards and guidelines. Because of our access to all relevant information and expertise, Congress is in the position to draft legislation which is free of loopholes or gray areas which would require interpretation by the courts. The Clean Water Act is an example of Congress will and ability to pass such a law.

It is our responsibility as legislators to be fair to the businesses, industries, and municipalities which are subject to our pollution control laws. The public interest demands certainty and consistency in the permit system. And, this cannot be accomplished if two sets of standardmaking bodies, Congress and over 400 Federal judges, are simultaneously determining what are acceptable levels of pollution.

In the case of the Metropolitan Milwaukee Sewerage District, these conflicting determinations have resulted in over 12 years of litigation. Such litigation is costly and time consuming for all parties involved. Given this atrocious example of permitting judicial discretion in an area in which judges have no expertise, I sincerely believe a reinstatement of Federal common law would be a grave mistake.

In conclusion, I would like to ask the subcommittee to think about the consequences of what would happen if the Federal common law were inserted in the Clean Water Act. First, there would be a tremendous amount of forum shopping, some chorus will be labeled proenvironmental and environmental groups will go to those chorus and other chorus will be sympathetic toward industry and industrialists will go to those chorus to attempt to have the issue litigated.

Second, the permits that are issued under the Clean Water Act by the EPA will really give no certainty to the issuee, the issuee would not know whether a higher or lower standard than that which is set by the EPA will subsequently be imposed by a Federal judge.

And third, the delay, completing litigation is very expensive. In Milwaukee, we could have started this project 12 years ago at an infinitely lower cost, particularly in terms of the figures that Senator Proxmire gave to the committee, had not the whole issue been

held up in the court following an extensive trial and appeals all the way up to the Supreme Court of the United States. The Supreme Court was correct in the case of *Milwaukee* v. *Illinois* in stating that the continual permit established under the Clean Water Act is and should be the exclusive permit system. That is the only way the certainty that getting on with the job of cleaning up our waters will be put into this law and consequently I would urge the subcommittee to reject the motion of inserting the Federal common law into the Clean Water Act.

Senator CHAFEE. Thank you very much, Mr. Sensenbrenner and we appreciate your views.

Do you have any questions, Senator Stafford?

Senator STAFFORD. Thank you very much, Mr. Chairman.

Just one question, Congressman. It occurs to me—did the *Milwaukee* case eliminate State common law from being considered in cases like the *Milwaukee* case?

Mr. SENSENBRENNER. I am not an expert on that; Mr. Cutler is. I don't believe that State common law was an issue that was litigated in the *Milwaukee* case. However, I believe that argument can be made, which should be sustained by the court, that the Federal Government in passing the Clean Water Act did preempt State common law in dealing with this matter.

However, you and I aren't judges, and only judges can answer that question for sure.

Senator STAFFORD. We have one former judge here on this committee but I won't address that question to him now.

However, I will suggest if your assumption is wrong, that there might still be 50 jurisdictions, all common law, that can be applied to any case like the *Milwaukee* case.

Mr. SENSENBRENNER. Most States have passed their own State Clean Water Act and I believe that the same argument which the Supreme Court of the United States accepted in the *Milwaukee* case would be accepted in case of State litigation in those States which have passed Clean Water Acts. As we are aware, most State Clean Water Acts dovetail with the Federal Clean Water Act.

Senator STAFFORD. Thank you very much.

Senator CHAFEE. Senator Mitchell.

Senator MITCHELL. I have no question. I will make one comment, Congressman, without expressing an opinion on the position you have taken.

I really don't think that, refering now to the last sentence in your statement, that an area in which judges have no expertise is an argument for depriving courts of jurisdiction.

We have a Federal judicial system which is established not on the basis of individual expertise by judges. The judge may hear patent, copyright, antitrust, criminal, civil cases, and a case of this type will be, I think, no more complex and perhaps not nearly as complex as those. We don't have separate courts for environment, tax, antitrust, and so forth. Not to defend a particular case; just to make the observation.

Mr. SENSENBRENNER. My recollection of Judge Grady's opinion at the district court level indicated that he was overwhelmed by the complexity and mass of testimony that was placed before him for decision and he admitted that he was a layman and did not have

the technical background to sift all through that testimony. I don't view the Federal common law issue as an issue of robbing the Federal courts of jurisdiction like some of the other issues that we face here in the Congress. The courts can always determine whether the Clean Water Act in the permit has been complied with dealing with the body of statutory and administrative law rather than picking something out of the air, which is what may very well be the case with the Federal common law being applied, particularly in the cases of first impression.

Senator MITCHELL. Thank you.

Senator CHAFEE. Senator Randolph.

Senator RANDOLPH. Representative Sensenbrenner, you are a new Member of the Congress, is that right?

Mr. SENSENBRENNER. I have not been around quite as long as you. It is my third term.

Senator RANDOLPH. I am happy to have served in the first 100 days of the New Deal, but I have no desire to be the oldest Senator on the Hill, so I will be moving out in a couple of years.

I am very interested in what you are saying here. Are you saying to us that too often the judges are asked to rule on matters that really they should not be ruling on?

Mr. SENSENBRENNER. Judge Grady admitted in his decision in the *Milwaukee* case at the district court level that much of the evidence was complicated and beyond his expertise.

What I am saying is that we can develop a body of interpreting the statute in the administrative law that I think will do an adequate job in resolving disputes over the Clean Water Act and the EPA's activities in issuing permits rather than having a two track type of system, one interpreting the law that we passed and the regulations that were issued under it, and another interpreting a very nebulous body that is called the common law.

It seems to me we ought to have a one-track system for certainty of what the standards are and enforcing compliance with those standards.

I think that it is simpler to go utilizing the Clean Water Act because that is the uniform law passed, rather than allowing each district judge and then the appeals process, whittling different opinions down.

Senator RANDOLPH. I thank you. We need to move along. I am only saying perhaps it is not as simple as it might appear at first reading.

Mr. SENSENBRENNER. That is why the *Milwaukee* litigation took 12 years and progress was halted until the Supreme Court reached its decision.

Senator CHAFEE. Thank you very much, Mr. Sensenbrenner.

We appreciate your taking the time to come over and your statement will be very helpful to us.

I want to acknowledge the presence of our very distinguished chairman of the full committee. We appreciate him taking the time to be with us.

Is there anything else you would like to say, Senator Stafford, at this time?

Senator STAFFORD. Thank you, very much. I have no questions at this time.

Senator CHAFEE. Governor Peterson, we appreciate your permitting the other witnesses to intercede in the middle of your statement, so why don't you continue?

STATEMENT OF RUSSELL PETERSON, PRESIDENT, NATIONAL AUDUBON SOCIETY—Continued

Mr. PETERSON. Mr. Chairman, I left off commenting about the current statute having done a good job of enabling us to hold your own pretty much and to prevent major additional degradation but much more is needed to be done.

In my prepared testimony, I have cited a number of examples of critical water quality problems that still exist and so to save time I will not repeat them orally here.

You, Mr. Chairman and Senator Randolph, have jointly introduced Senate bill 341, which demonstrates your resolve to achieve the goals of the 1972 law.

Let me suggest ways that we believe your bill can be strengthened to be an even more effective means of achieving clean water in the next decade.

First, your bill proposes allowing municipalities to opt out of the pretreatment program established in section 307 of the act. It is our position this case is yet to be made that a pretreatment opt-out provision such as yours is necessary. The pretreatment program has not yet had a chance to work because of EPA's delays in issuance of governing categorical standards.

The pretreatment program should be given a chance to work before legislative revision to its design or concept are made.

Second, we believe that it is imperative that EPA begin now to devise the next generation of controls on toxic pollution discharge. We already know in certain areas of industrial concentration, the BAT requirement simply is not enough to do the job.

Section 301 of the CleanWater Act authorizes EPA to go beyond BAT to cleanup these waters. The Agency must be directed by Congress to identify which water bodies will require further protection and then to move promptly to devise targeted cleanup strategies to achieve the *x* goals.

We ask that you amend Senate 341 to address this growing problem.

Third, it is time to begin doing something about nonpoint-source pollution and not just study it more as your proposed legislation calls for.

Nonpoint-source pollution control should be accomplished through development of best management practices to be applied to those sources that are determined to be the most significant contributors of a given form of pollution.

Development and implementation of these controls should take place at the State and local level under Federal oversight.

Fourth, your bill, Mr. Chairman, contains a provision that recognizes and addresses the dangers presented by EPA's 1982 proposal to encourage the downgrading of State water-quality standards. We support your effort to prevent any downgrading of use designation in effect as of January 1983. This is essential to achieve the statute's fishable and swimmable goal.

We urge you also to consider adding specific protections to the statute for pristine and outstanding natural resource waters, like those in our national parks and wildlife refugees and wild and scenic river systems.

Fifth, bays and estuaries are among our most unique and productive natural recources. We commend you for earmarking funds in the proposed statute to help Chesapeake and Narraganset Bays but we recommend you extend such assistance to other bays in need through some administrative mechanism overseen by EPA and by adding language such as that appended to my testimony which will give State guidance in how to work with each other to manage these estuaries on watershed or river basin basis under EPA's assistance.

I need cite only one example to illustrate my source. The nonpoint-source pollution of the Chesapeake Bay is not Maryland or Virginia or even my own State of Delaware but New York. Until New York is brought to the management table with other States contributing pollution of the Chesapeake Bay, one of the most serious forms of pollution to that bay will not be addressed.

Sixth, discharges by certain dams continue to degrade water quality, killing, altering downstream aquatic habitat, and reducing the capacity of downstream waters to assimulate the discharge of pollutants from other sources.

These dams should be required to operate in a manner which minimizes harm to water quality and to use new low-cost technology which improves the quality of dam discharges.

Finally, we would ask this committee to consider clarifying the original intent of the 1972 law that Federal common law remedies be available for citizens injured by the effects of pollution.

In a time of declining revenues for enforcement in both the Federal and State levels as well as the obvious inequities associated with this association giving injured citizens the right to proceed in a court of law against pollutors seems to be a needed addition to the law.

A strong Clean Water Act will not cost jobs or strangle the economy as some contend. In fact, this is a particularly irritating thing to many of us, that members of the business community, some Members of Congress, the administration continue to contend that the Clean Water Act is harmful to the economy when the facts show exactly the opposite.

We proceed with major industries like the production of tobacco and manufacture of cigarettes and distribution of them. I never hear anybody in the business world complaining about that as being harmful to the economy. One of the last growth industries of America is the manufacture and sale abroad of military weapons. I have not heard anybody talking about that hurting the economy. Yet, when we ought to manufacture equipment, providing hundreds and thousands of jobs in the pollution control industry to do something to protect our health, they say that hurts the business community. That is a strange argument and the facts do not support it.

I thank you, Mr. Chairman, for the opportunity to be here today.

Senator CHAFEE. Thank you, very much, Governor Peterson. I think what might be best is to hear from Mr. Jensen, if that is

agreeable with the panel, unless any members of the committee have to leave and want to ask questions of Governor Peterson now.

Senator RANDOLPH. My questions are not the type that I would be asking the others and I wonder if I might just take 2 minutes.

Senator CHAFEE. Go ahead and proceed, Senator.

Senator RANDOLPH. Governor, where is Mr. Stahr?

Mr. PETERSON. Mr. Stahr is working here at the Southern University and is a part-time consultant to the National Audubon Society.

Senator RANDOLPH. We gave him a good training in West Virginia.

You believe that there is some flexibility possible in the law; is that right?

Mr. PETERSON. I think there is reasonable flexibility in the existing statute and there are some places where we need to strengthen the statute, as I said in my testimony.

Senator RANDOLPH. You talked Chesapeake Bay. You realize the waters going into the bay from West Virginia are the north branch of the Potomac and south branch of the Potomac, did you ever check those waters and see how they are?

Mr. PETERSON. There has been substantial improvement. This is true of many other waters around the country. But it is true right now that New York State, which most people won't consider as being a part of the Chesapeake Bay pollution problem. New York is the principal contributor to contamination of that valuable bay. We recommend that management conferences be established with some authority to develop proposals for how this whole estuarine complex can work together to protect the bay.

As you know, that is one of the basic problems in ecology: when you do something in one place, it can have an impact on places quite remote. In past decades, we were not wise enough to recognize that, but our community as a whole has become educated to that and we have to bring that additional knowledge to bear in writing statutes and enforcing them. So just the immediate discharge into the bay from the rivers normally recognized as being tributaries is not enough. We have to look at the total network of streams feeding into the Chesapeake Bay.

Senator RANDOLPH. That is the only reason I mentioned the north and south branch of the Potomac, people forget they flow into Chesapeake Bay.

I will read carefully your testimony.

Thank you.

Senator MITCHELL. Did you wish to proceed, Mr. Chairman?

Senator CHAFEE. I would prefer to go ahead with both witnesses, but I know you have time constraints, thus, if you felt you couldn't stay because you wanted to get to the Veterans' Affairs Committee, why don't you ask your questions of Mr. Peterson now?

Senator MITCHELL. I will stay because I would like to hear the witness' testimony.

Senator CHAFEE. Mr. Jensen, you have a written statement, we will put that into the record so you could summarize.

STATEMENT OF HAROLD JENSEN, DIRECTOR, ENVIRONMENTAL CONSERVATION AND ENVIRONMENTAL CONTROL, WARNER-LAMBERT CO.

Mr. JENSEN. Mr. Chairman, Senators, thank you, very much.

I am summarizing the statement.

I am representing the NAM Association of Manufacturers which represents some 12,000 enterprises both large and small across our Nation. And the industry has been spending some billions of dollars and hope the Nation recognizes that.

I also would like to submit another piece of information here; the association's document on essential changes to the Clean Water Act, which we put together last year and which has been updated this past month.

I would like to speak just for a minute about industrial compliance. I really appreciate the fact that you are recognizing that there are really four areas of materials that go into water.

It is a natural background which we cannot do anything about, but yet they are very much involved in looking at the qualities of water. The nonpoint source which has been brought up, I fully agree that as an area that needs very much to be addressed. In fact, in the environmental—Council on Environmental Quality pointed out in its 1981 document—which I have before us—said that 37 of the States find that they will not be able to meet their 1983 goals for water quality due to nonpoint sources.

Of course, the third area is publicly owned treatment works which serve industry as well as commercial and the public, and then lastly industry's discharges.

I think that you will find that looking at the three areas that we can control industrial discharge and when you consider the compliance of the NPDES permit, et cetera, has the best record of meeting the discharge conditions and requirements.

And, therefore, our focus really should be on municipal areas which definitely Congress is focusing on to the construction grants program and nonpoint sources which has been addressed already.

That is not to say that industries feel that they are done. We very much are involved in this program.

We also strongly support the position that has been expressed that the act is basically sound and perhaps there are some small judgments that are needed.

I would like to focus just for a moment on the NPDES permit system. We feel that it should be definitely put to the State authority and that in EPA's role should be on a randum audit basis rather than intimately involved in every permit.

We feel this will greatly speed up the process and reduce a lot of staff effort.

We feel that an NPDES permit should be issued within 180 days after satisfactorily an application is submitted. And if not, if it is to be denied, it should be denied on a sound technical basis. Permits are taking a long time to be reissued.

We feel that a permit's life should be 10 years. This, again, will reduce staff requirements.

With respect to pretreatment which is also municipality NPDES issue, we feel that should be really a municipality issue. After all,

it is the objective of the Clean Water Act to protect the water and therefore meet the discharge permit. And it should be the role of the municipality to control its NPDES permit, its treatment plant, and all the industry and commercial establishments to feed into it.

EPA's role should simply be the guidance, technical guidance to municipalities so they can carry out this responsibility.

With respect to water quality standards, we do not support a freeze of water quality standards as of January 1, 1983. This is really not a freeze as of 1983 because most of these standards were established in the early seventies under the hasty requirements of the early amendments of the act and the States did not have the technical background to understand or appreciate the significance of the water quality standards.

So, really, this is a freeze as of the early seventies.

We feel that water in our Nation is an economic asset and it should be managed accordingly.

With respect to degrading, I don't think there will be a mass degradation of the quality of water. I think it is more a realization that there are some areas of our Nation, some waters of our Nation, that will never be able to meet their standards, most of these due to our natural causes.

This, again, is pointed out by the Council on Environmental Quality in their report.

With respect to some States degrading their quality of their water so that industry could shop around, I have been involved for a number of years in site selections for industry, and I don't think that will be a reality. When industry cites a facility, they have many, many criteria. Availability of raw materials, the closeness of the market for transportation reasons, the labor costs, many, many issues. And the quality of or the cost of pollution control is just one of those many, many factors.

So I do not think that this is an overriding issue. It was spoken earlier about the control of toxics.

We feel that toxics definitely should be controlled but to the extent that they are needed. We should look at a stream as to where pollutants are coming from, again the nonpoint sources, the municipalities and industry and to establish high level guide lines for industry across the board or municipalities, for that matter, is not appropriate. It should be based on the requirement of the receiving stream, otherwise we will be spending far more money than necessary to nake something that is perhaps already clean, extra clean and would not be noticed.

We really appreciate and thank you for your support on extending the deadlines for industry and we feel this is definitely a must.

In conclusion, using your words, Mr. Chairman, take advantage of the momentum of the act here. We definitely feel there is a momentum in cleaning up our waters and that Congress should take advantage of this momentum to do our finetuning.

Thank you.

Senator CHAFEE. Thank you, very much, Mr. Jensen.

I would like to ask a question of both of you because you both touched on it and that is the nonpoint sources. Nonpoint sources is something that has bedeviled us here as both you gentlemen know and it is easier to discuss than to cure, I guess.

Governor Peterson, do you have any specifics on nonpoint sources, what we might do?

Mr. PETERSON. Yes, Mr. Chairman, I think it would be important to have a mechanism whereby EPA could provide the leadership in establishing management practices that would reduce nonpoint pollution.

For example, if it were concluded that agriculture was a major cause of nonpoint pollution in a segment of a stream, to require contour plowing in the area, or a greenbelt, which are some examples of things that might be established as management practices to reduce or prevent the nonsource pollution from agricultural land.

The same thing with a major amount of sediment going into the streams, these development practices would be required—certain management practices—to prevent the sediment from running into the streams by having levies to prevent it from occurring.

Until such things are done, we are going to continue to be plagued by this tremendous amount of runoff, carrying insecticides, fertilizers, sediment and thus degrading the water quality of our waterways.

Senator CHAFEE. Mr. Jensen, I think we all acknowledge what industry has done and the statistics that you cite are certainly valid that the industry has performed far better than municipalities. As you mentioned, we have made a massive effort here to assist the municipalities. In 1981, we made very substantial changes in the law which we think will speed up the municipalities get them ahead faster without the delays in the initial designing of their plants.

We hope we would head there, but at the same time, I suppose it is fair to acknowledge, although industry has done well, in its part, still the great bulk of the toxic waste certainly comes out of industry and not from municipality plants.

Let's stick to the nonpoint sources, what thoughts do you have there?

Mr. JENSEN. Thank you. I think you will find that a lot of the nonpoint sources are coming from urban areas, community. I grew up in the Northwest and was very much involved in campaigns of picking up litter and became an ethic of the people to not throw things away.

I think there can be a similar ethic established in the communities for urban cleanup and runoff from our streets, et cetera. So many times I see people, for example, changing the oil in their car and dumping it down the storm sewer. In the cold mornings you go to the community and see steam coming out of the catch bay since because that is only homes are connected to the storm sewers rather than sanitary sewers.

Mr. Peterson used the term "best management practices," I think there are those definitely that can be installed in communities to help control these areas.

Senator CHAFEE. Anything else, Mr. Jensen on that.

Mr. JENSEN. No.

Senator CHAFEE. That is all I have.

Senator Randolph.

Senator RANDOLPH. Mr. Jensen, I am sure you are familiar with S. 432, is that right?

Mr. JENSEN. Yes.

Senator RANDOLPH. The measure that I introduced will extend industrial compliance deadlines to 3 years after promulgation or 3½ years after enactment, whichever date will be later.

In your statement you endorse the deadline extension, the procedure that is contained in Senator Chafee's bill, which is S. 431.

Now, in your preferance for the approach by Senator Chafee regarding compliance no later than July 1987, how does that square up with your thinking on the language of the bill I presented?

Mr. JENSEN. I believe that was a typographical error in the document which has been changed by hand. We endorse your bill 432.

Senator RANDOLPH. That is a good statement.

Senator CHAFEE. I thought that would please you.

Senator RANDOLPH. We know you have to expand on that.

Mr. JENSEN. You want me to expand?

Senator RANDOLPH. Get me in deep water.

Mr. JENSEN. I think that the point that you put into the Congressional Record recognizing the integrated facilities is a very important factor. Most of the manufacturing facilities that I am aware are integrated facilities. So realization of that factor is very much appreciated.

Senator RANDOLPH. Governor Peterson, I spoke earlier on one or two local matters concerning a person whom I have great confidence, Delton Stahr, also an appreciation of those rivers that flow from West Virginia, people forget where those waters comes from, as you know.

You have indicated there is damage being caused to downstream water quality by large dams. I think, that the state of the art, as I will call it, on dam regulations is not very certain. I have many questions to ask about it. Would you agree that the study of the problem might be preferable or do you think that is putting off something?

Mr. PETERSON. Obviously it is always desirable to get more information. I think we have plenty of information today to move ahead to put some control over the damage being done by a relatively small number of dams, like 3,000, not a huge number, not the two million dams which some people talk about; it is only the high dams and those which have a huge reservoir behind them that have the problem. We know today relatively inexpensive approaches that can prevent most of the key problems that are plaguing the downstream water quality.

When you operate the dams in such a way in one case the outcoming water is so low in oxygen that fish life can't survive; in other cases it is so loaded with oxygen they can't survive in that condition either. When you have sudden discharges from the bottom of a reservoir behind the dam and spew out tremendous quantities of sediment that kill fish and microorganisms in the bottom of the downstream river, those are pretty serious matters. There can be sudden changes in temperature; all of a sudden you start releasing water from the bottom of a major reservoir and that in turn can stop the production of fish life.

But by recognizing these problems and managing them in a such way as to prevent you can avoid the sudden changes or avoid the major problems with too much oxygen in one case or too little in another case, you can eliminate the problems and I think the technology is here and it is not of any major cost relative to the benefits realized.

Senator RANDOLPH. Governor, I want to be very specific about one lake, Burlington, do you know where it is?

Mr. PETERSON. No, I don't know.

Senator RANDOLPH. On the edge of Maryland and West Virginia. We have been wondering if someone like you would look into the value of that. We think that the takedown of water from that lake at certain times has an effect not only on the flow of water eastward but also the quality of the water as well.

It is a lake that is in a beautiful mountain area and used for recreation but the primary use would be the letdown of water that would flow into the Chesapeake Bay.

In your statement you suggest that adding specific protections to the Clean Water Act for waters in our parks and wildlife refuges and wild and scenic rivers is something that is worthwhile. Do you want to elaborate on that general concept? Would you want to be more specific?

Mr. PETERSON. Yes, Senator.

This is analogous to the problem and opportunity we talked about with clear air in national parks. Because of the tremendous value of those places and to maintain their natural character and the great value as a place for us to enjoy wildness, the experiences that millions of people have in parks, we, Congress has decided that we are not going to permit major pollution of air to interfere with the health of various plant and animal life and the visibility in the park. Likewise pollution goes through streams that are running through those areas. I believe any discharge into such streams should be avoided.

And the siting of plants should be very carefully controlled. Those areas are especially valuable treasures of our society and we need to use them with care, not as a way of disposing of our garbage and our toxic chemicals. We can preclude them, period, from that site.

Senator RANDOLPH. Thank you.

Mr. PETERSON. Mr. Chairman, may I comment on the limi- tations, the extension, the deadline just briefly?

Senator CHAFEE. Sure.

Mr. PETERSON. I would like, Senator Randolph, to object to your excessive extension of that deadline for compliance and I believe what Senator Chaffee's bill does, providing for 3 years beyond the time when EPA established effluent guidelines, is enough of an extension. We know from historical records the industry has readily complied with previous such requirements under B.T. well within the 3-year period.

In fact industry has testified here in the past about 3 years being an adequate length of time to do the job. Each year we delay in reaching these goals we have allowed many millions of tons of poisons to get into our national parks.

Senator RANDOLPH. Governor, I can understand you and I might differ on some of these matters. Essentially I am sure that our records will show, at least in your instance you made contribution on this behalf of clean water.

You know we will have some witnesses, I believe, next Thursday, and we will be discussing this in more detail bringing out some of the matters that I think I would want to consider as well as others.

Mr. PETERSON. Mr. Chairman, I will respond to your request that we give an opinion about Cumberland Lake.

Senator CHAFEE. Senator Stafford.

Senator STAFFORD. Thank you very much, Mr. Chairman, I would say to Governor Peterson, Mr. Jensen, that in a few of your references to Chesapeake Bay, that last weekend I conducted a personal inspection of the Bay due to one brief or unplanned incident I found the water much colder than I thought it was and I plan to continue my inspection of the Bay next weekend if the weather permits.

Governor, I was particularly struck by one of the points you made in your testimony, the point that environmental pollution controls have positive economic impact. I think personally that is refreshing because mostly in this committee we hear about the cost of compliance. Your message, as I get it, is that environmental protection is good for business and I agree with you.

Do you believe it will continue to be true as we move forward on issues like toxic hot spots, indirect dischargers, and nonpoint source pollution?

Mr. PETERSON. Yes, I do, Senator. Before I became Governor of Delaware I worked for the DuPont Co. for 26 years and during most of that time I was deeply involved in the launching of new business ventures. I was in charge of the business, so I know how the free enterprise system works and I know that industry is always searching for new markets for business opportunities which will return investments and provide jobs and the Clean Air Act and the Clean Water Act have created new markets in America and many people have responded to that in the free enterprise system, invested money in manufacturing to produce gas scrubbers, water-pollution treatment plants, hundreds of thousands of jobs have been created.

It is really a typical free enterprise success story and that is why I can't understand why people get so upset particularly when at the same time adding to the health of the society. It is a phony argument and I hope that you Members of the Congress will pin people down to the source of their data to support the contention that these requirements really hurt the economy.

Senator STAFFORD. Thank you very much, Governor.

Mr. Jensen, I would like to ask you a couple of questions.

You stated that the record of permit compliance by publicly owned treatment works is not very good. Yet you go on to urge that POTW permit compliance supplant the present system of industrial pretreatment standards. How do you reconcile the apparant contradiction in these two statements?

Mr. JENSEN. What we are talking about is a management structure in which to date the EPA has been trying to control or regulate the pretreatment on an across-the-board basis, it is delayed to

a great degree. What we are looking at, by keeping the management level at the local level with the support of the States and enforcement by the States and the EPA, we will probably proceed quicker toward these controls.

Senator STAFFORD. Thank you, Mr. Jensen.

Mr. Chairman, are you going to get unanimous consent for questions to be submitted in writing?

Senator CHAFEE. Yes; if you gentlemen will be good enough to answer questions submitted in writing we will appreciate that. If you can do it in a timely fashion that will be helpful.

Senator STAFFORD. Thank you, Mr. Chairman.

In that case I will not persue the rest of my questions at this time. I have some for the next panel that I would like to get to.

Senator CHAFEE. Fine, you are not restricted. You can go to both panels.

Senator Mitchell.

Senator MITCHELL. Thank you, Mr. Chairman.

Mr. Jensen, the thrust of your statement seems to be that the Federal role in our national water pollution programs should be diminished and the role of the States and municipalities should be correspondingly enhanced. Is that a fair assessment of your statement?

Mr. JENSEN. Correct.

Senator MITCHELL. In the course of answering another question you commented on the argument that has been made to support a national program to the effect that there will be a temptation on States to bid against each other in relaxing standards in an effort to gain industrial development in those areas and you seem to discount that on the ground that it is one of many factors although you didn't say it, the implication of your remarks it is not likely to have an effect on decisions.

Am I fairly interpreting what you said?

Mr. JENSEN. That is correct.

Senator MITCHELL. I wasn't here at the time, Senator Randolph and Senator Stafford were, but it is my recollection that one of the principal reasons for establishing a national program in the first place was the failure of the States and local governments to deal with the problem in any meaningful way. That is certainly true in my own State. I wonder what has changed in this country in the past 10 years to lead you to believe, or to conclude, as you appear to have, that we don't really need a significant national presence any more and that the States and localities can assume its burden and meet national objectives of clean water?

Mr. JENSEN. What we are talking about is a State and local presence for managing. The reason why we are focusing in on the local States—you call that local.

Senator MITCHELL. Non-Federal.

Mr. JENSEN. Is that the waters are very definitely impacted by local conditions, whether it is weather, geology, many other factors. So, the program that has gone on in the past 10 years plus by the Federal, has got the momentum going and we gained a lot of knowledge in-house to test, how to sample, how to set up management structures for that. Now that that momentum has gone, the program has started to mature to the extent that the local State

areas can then establish or fine tune this management program to their local needs and carry on rather than have a uniform requirement across the Nation.

What is required for managing a stream in Florida is not necessarily true for Maine or New Mexico.

Senator MITCHELL. Do you not agree that the initial impetus for Federal actions in this area was at least in part due to the failure of the States to take meaningful actions?

Mr. JENSEN. There were probably many States that did not proceed as fast as others, some that did proceed to a greater extent to.

Senator MITCHELL. Do you also not agree that the area of pollution control generally has become more complex particularly in the context of this discharge of toxic chemicals, the problems arising from pretreatment, the mixing of industrial and municipal waste and that while we have gained a great deal of knowledge, there remains a significant area of uncertainty and that requires the best information we have to deal with the problem?

Mr. JENSEN. By gaining more knowledge we have been able to assess. I don't think it has made it worse. We still had in the past 10 years within 10 percent of the same population, we still had the same goods and services to a large extent within this Nation. But certain things have changed within our Nation. We have learned to manufacture more efficiently and we have learned to choose things in different ways.

I imagine that the full impact upon the rivers has diminished and that I don't think it has gotten worse.

Senator MITCHELL. The reason it has gotten worse is we have a national problem that we didn't before. Isn't that precisely the reason for that?

Mr. JENSEN. Yes.

Senator MITCHELL. I fear acceptance of the intent or thrust of your remarks will ultimately bring us back to where we were 20 years ago, a situation all of us want to avoid.

Let me go on to ask Mr. Peterson one question. You heard Senator Proxmire and Congressman Sensenbrenner say all those terrible things about that terrible judge out in the Midwest and how awful that decision was and you have quietly stated the contrary view in your remarks.

National law seems to me like a pretty good proposition. Could you elaborate on your contrary position in that regard?

Mr. PETERSON. Yes, Senator, I think it is fundamentally sound when a citizen of the country is harmed, health seriously impacted, as a result of an illegal discharge of a toxic into his or her environment, that he or she ought to have acce.ss to getting some compensation for the damage.

Senator MITCHELL. Of course the key to that is your statement that it was illegal, if I can presume to argue for Senator Proxmire, he will come back and say we are talking about someone who has gotten a permit from EPA, that is hardly illegal.

Mr. PETERSON. I think that the Congress could draft—and we were trying to be helpful—wording which would provide for the protection of the individual and avoid the unnecessary hardships that might result from inadequate drafting of that language.

Senator MITCHELL. What you are saying is, you would presumably be supportive of something that did not produce the dire results in *Milwaukee,* duplications with the potential uncertainty, while at the same time wanting to preserve the Federal common law rights in those areas that were not specifically covered by the Clean Water Act.

Mr. PETERSON. Yes; I would think that made sense. But, what I would like to do is respond to this more adequately by writing to the committee and, Mr. Chairman, if I could about this subject.

Senator MITCHELL. I would appreciate that if you would. I think we all would like to know what you do.

Thank you, very much.

Senator CHAFEE. Thank you, Senator Mitchell.

Just a couple of points. I would like to say, in following up what Senator Mitchell said, Mr. Jensen, the problem is that giving great authority to the municipalities puts them under tremendous pressure.

The mayor is conscious of his tax base in his community; he doesn't want to disturb that tax base and, therefore, he is prepared to make logical concessions in order to keep industry there, but the result is that the streams become dirtier and we don't proceed with the objective of this legislation.

So I am not as sanguine as you are that we can turn back to the municipalities all the powers that you would seek us to do, although this provision, as has been pointed out, has an opt-out provision for the municipalities.

Mr. Peterson, you have asked us to do several things and, setting aside the common law, you asked us to undertake activities with nonpoint sources in agriculture and with damages.

It seems to me we are biting off a very big chunk and I can recall when we dealt with this legislation in the past. In 1977, we steered away from agriculture because of our fear that would imperil the passage of the legislation.

If we get into requiring contour plowing, or whatever it might be, that is stretching the powers of this committee far beyond what we have ever done before.

Dams have also stirred up all kinds of oppositions; we have enough trouble with this legislation just dealing with section 404.

What do you say about that?

Mr. PETERSON. Mr. Chairman, I say this: that the objective of the statute which Congress has written and which you are now reviewing, as you well know, says that our Nation is going to move toward the so-called fishable and swimmable goal, which I think is a highly desirable objective. And if we are going to continue to make progress toward that goal, we have to do more than the law certainly provides for us to do.

A few minutes ago, Mr. Jensen referred to the fact that he was opposed to a freeze on the State water-quality standards. We are opposed to a freeze, too. We are opposed to downgrading, but we are not opposed to upgrading.

We think that their move toward downgrading the standards, as some people are promoting, would be analogous to what we are doing in other fields. It seems to be standard practice these days.

Senator CHAFEE. I don't think you are going to find this committee supportive of downgrading. As we mentioned, Senator Randolph and I sent a letter to the administrator on that subject.

What you are suggesting to us is embarking on a very major area that we have shied away from in the past because of the problems it brings up with this legislation. It would put it, as you know, in a very high profile position, and—should we should do that.

I am sorry Senator Stafford is not here. He represents an agricultural State, Senator Mitchell does to a considerable degree, but that is nothing as to what would happen with the Senators from the Western States. But your recommendation is that we sail in a harmless way.

Mr. PETERSON. Yes, Mr. Chairman, my recommendation is that we continue to make progress toward the goals of the statute and we cannot continue to ignore the nonpoint-source pollution and reach those goals.

Obviously, it adds to the complications, but I recommend you bite the bullet and make some headway in that direction.

Senator CHAFEE. I am worried about the nonpoint-sources and the dams, and I think the points you made were good ones.

With the dams there may be another way to skin the cat, I don't know, through education, technology transfer—TVA knows a lot about this; maybe they can spread out their knowledge.

The dam situation, I think, is easier. I think what happens with the dams is ignorance rather than intentional error.

Mr. PETERSON. I think there was lack of knowledge in the past. We have come a long way in understanding this problem.

Senator CHAFEE. That is right.

Mr. PETERSON. But now that we do understand, we ought to do something to correct the situation.

Senator CHAFEE. We will try to do so.

Senator?

Senator RANDOLPH. Thank you, very much.

Just this final comment, Governor.

I remember our original act in 1972. Ten years have now gone by.

Let's take two rivers in West Virginia. The Kanawha and Monongahela.

We will go to the Upper Ohio for a moment out of Pittsburgh moving south down through what we call Hemcock, where Wierdon Steel has a very large plant which is now in difficulty, at least in part, due to Japanese competition—and I won't get into that. But I remember in those days, at the time we passed this act, the river adjacent to the plant was not swimmable, it was not fishable, but that has been changed. We catch game fish there, and there is no problem, you can cut them open and examine them and you will find that they are eatable.

So you know about a condition of that kind. We move now to the Kanawha River and the same situation comes in. The river flows through the heart of a chemical industry. It is of very real importance to our economy.

You could walk down, if you want, from the Governor's mansion or Governor's office in our statehouse, down to the stream and you swim in pure water.

You walk down and if you would care to and you are lucky you can catch game fish.

All this came about through 10 years, a very strong indication of what was done then, we didn't know how it would work, but it has worked remarkably well; is that right?

Mr. PETERSON. Yes, Senator, that is right.

In my eagerness here to talk about where we should go from here forward, I didn't want to neglect saying we have made great progress in the 10 years since you and your colleagues have passed this act. It has been a service to our country.

But if we are going to reach the goal that you have set, there is much more to be done to continue toward this goal of fishable and swimmable waters.

I think that industry has really done a major job of cleaning up the stuff that was spewing into our Nation's streams. There is more to be done. We are meeting today to talk about what we should do in modifying the legislation to make further progress toward this goal and my comments are given in that light.

Senator CHAFEE. Thank you, gentlemen.

Our next panel will be Anthony Roisman, Mr. Freeman, Mr. Kamlett, Mr. Cutler, and Mr. Abrams.

You gentlemen have statements and some of them of considerable length. They will all go into the record.

If you will summarize them, we will give each witness 6 minutes.

Mr. Roisman.

STATEMENT OF ANTHONY ROISMAN, ESQ., WASHINGTON, D.C.

Mr. ROISMAN. Mr. Chairman, thank you, very much.

It is a pleasure to be here before this committee which has taken such a leadership role in the issue of cleaning the Nation's waters. And the question presented for the committee and that I would like to address today is whether the Congress of the United States believes that when regulation fails there is a role for the Federal courts to play in providing protection for the Nation's waters.

The Supreme Court in its decision in *Milwaukee* v. *Illinois*, creating what I believe is a strained interpretation of this body's intent and of the legislative language, concluded that because of the existence of a regulatory scheme, which they call comprehensive, there is no role for the Federal courts to play to provide a common law remedy in those extreme instances where despite regulatory controls, serious environmental damage occurs. And I think that is a wrong decision and that to the extent Congress has the opportunity now to correct it, it should do so.

First, we should examine what it is that the Supreme Court struck down and what the common law really provides. The common law is not a second guess to regulatory standards. Common law is instead a system by which injured parties who are not adequately protected by a regulatory scheme, which is by its very nature going to have gaps in it because regulators cannot be prescient enough to anticipate every circumstance; can, in appropriate cases, through a judge and a jury, be given some relief, if justice requires it. When we look at the question of whether the

common law should be displaced by the existence of a Federal regulatory scheme, it has to be in this context.

Do we really want to say that when a reasonable judge and jury conclude that there has been significant environmental damage and that it should be redressed, nonetheless, the existence of Federal regulation prohibits any relief?

I believe that the history of the Clean Water Act and of Congress' concern with other environmental issues is that these matters are far too important to be left exclusively to the State, that there is an important national interest just as there is a national interest in having a standard regulatory scheme, there is and there should be a national interest in having a standard common law scheme available in those appropriate cases.

In *Milwaukee* v. *Illinois,* the Supreme Court not only announced the proposition that the Clean Water Act displaces Federal common law, but we are now seeing its implications in the Resource Conservation and Recovery Act, to the Clean Air Act, and every other general statute passed by this Congress both in and out of the environmental area in which Congress has attempted to address a problem through a national regulatory scheme and which does not contain a clear and explicit statement that it intends to preserve Federal common law.

There is a narrow reading of the *Milwaukee* decision which would hold that the only time common law is displaced is when a specific activity in question was specifically authorized by Federal regulatory actions.

That narrow holding is probably thrown out the window by the somewhat careless opinion in the Middlesex County sewer case which followed *Milwaukee* v. *Illinois,* when Justice Powell, at the very conclusion of that opinion, indicates that all Federal common law related to the Clean Water Act is displaced as a result of the *Milwaukee* decision.

Senator CHAFEE. OK, now you have 2 minutes.

Mr. ROISMAN. The important aspect of that decision is that gaps that now exist may be greater than any that were imagined by the Supreme Court or by Congress when it enacted the Clean Water Act. There is certainly now an argument to be made that any interstate pollution which is not already controlled by Federal regulation is immune from any action. State common law, it could be argued, does not reach an interstate pollution source and the Federal common law does not exist to deal with it. The very case, *Milwaukee* v. *Illinois,* is the best evidence of the need for a Federal common law. It demonstrates where there was significant harm and damage to the environment that, but for Federal common law, there did not appear to be an adequate remedy to deal with the problem and, when a judge hears that evidence and reaches that conclusion, it should be very weighty in terms of whether that conclusion remains as good law.

What I would propose be done to deal both with the problem of the Clean Water Act and also with the problem of other Federal acts is that Congress enact a generic statute that states unequivocally its intent that unless a statute explicitly preempts Federal common law, it is the intent of the Congress of the United States that the Federal common law remains available when and if a

judge determines that it should be applied in a particular case. That seems to me to be an appropriate balance between——

Senator CHAFEE. That comes before another committee. What would you have us do?

Mr. ROISMAN. You can limit your generic statute to all of the environmental statutes and do an enormous amount just in one area and, as the committee has done in many other instances, take the leadership in showing other committees.

Senator CHAFEE. In your proposal, you would have the Judiciary Committee report out a generic statute that says unless the legislation clearly states that this statute preempts the common law, then the common law shall prevail. So that does not leave us anything to do.

Mr. ROISMAN. If your concern is that you wish to move on this before the Judicary Committee does, then I am suggesting that you do this in the context of the environmental statutes that fall within your jurisdiction and then hopefully the Judiciary Committee will catch up and deal with it in other areas.

Senator CHAFEE. Clearly we are going to move faster than the Judiciary Committee. I do not even know there is such an act drafted before the Judiciary Committee. Is there, or is there not?

Mr. ROISMAN. Not to my knowledge.

Senator CHAFEE. That is a big burden on the Judiciary Committee, to expect them to pass something.

Senator Randolph has to leave, he has a comment.

Senator RANDOLPH. Mr. Chairman, Mr. Roisman, we remember you in connection with Love Canal and your expertise, your Justice Department approach; there is nothing wrong with that. What I am saying now, Mr. Chairman, and to the chairman of the full committee, I want the record to show that this member of the committee has stayed for this hearing. I think this is one of the most important matters before our committee, Mr. Chairman, and for that reason I frankly cancelled two other committees which were hoping or attempting to cope with problems affecting our State.

I wanted the record to indicate that this is a matter of priority in this committee and we are determined to do something about the matters that are being discussed here, is that right Mr. Chairman?

Senator CHAFEE. It is certainly right for this chairman.

Senator STAFFORD. And the chairman of the full committee concurs, also.

Senator RANDOLPH. I want to be helpful. Thank you.

Senator CHAFEE. Why don't you wind up, Mr. Roisman, or are you completed?

Mr. ROISMAN. That is really all I had to say, Mr. Chairman.

Senator CHAFEE. Mr. Freeman.

STATEMENT OF GEORGE FREEMAN, ESQ., RICHMOND, VA.

Mr. FREEMAN. Mr. Chairman, I appreciate the opportunity to be here today before this committee. I have been here before on many occasions over the past 10 years on this and other environmental matters. My firm represents a number of industries affected by all these acts. I have also been before the Congress many times representing the American Bar Association on regulatory reform and

the Federal Criminal Code. I also had the privildge to be one of the 12 lawyers to work on the Superfund Study Commission over the past 2 years. I mention all that simply to say where I am coming from and to give you an insight into my biases and my perspective. But I should also add I am here today testifying solely for myself and the views I express are soley my own.

I will start off by saying I agree with Senator Chafee and Senator Randolph about the fundamental soundness and workability of the Clean Water Act. Substantial progress has been made to clean up our Nation's streams and in the two areas where we still have fundamental problems, waste treatment and delayed compliance with certain industry standards, we are talking about largely funding and timing of the issuance of regulations. The reason the 1972 act has worked so well was that it reflected three fundamental principles: One, there was a careful balance between Federal and State roles in this act; two, there was a careful balancing between administrative action and litigation; and three, there was a fundamental shift in 1972 away from permits based primarily on case by case water quality based standards, to the nationwide technology base standard.

I think the result has been that we have substantially reduced time delays and the friction or transactional cost of cleaning up pollution have gone down considerably. In fact, if it had not been for the amendments of the Clean Air Act, lawyers like me who make our living in the environmental area would be very hard pressed because there is very little for us to do under the Water Act since most of the problems are solved administratively and not in the courts. I think that is a step forward and I think that is why we are so much farther ahead on water than we are in the other environmental areas.

I will state that I have a fundamental philosophical and legal difficulty with Mr. Roisman over the nature and extent of common law. He, in his prepared testimony, talks as if Federal and State common law were part of the same thing. But they are definitely not. When the founders wrote the Constitution, they reserved the police powers and the powers of common law to our States. They did not delegate those powers to the Federal Government. The *City of Milwaukee* case, addressing a very narrow area, said that when a State entered the Union, it gave up its powers to resolve interstate disputes by force or diplomacy. The Constitution instead substituted the right of a State to sue another State, where you actually had a State as defendant under the original jurisdiction of the United States. In the *City of Milwaukee* case, they held that the city of Milwaukee did not constitute a State and therefore there had to be another remedy for the State of Illinois because of the nature of our Federal union. Federal common law in *Milwaukee I* was expressed limited to the situation where the State is plaintiff. The issue was left open whether or not private parties have similar standing to sue under Federal common law, which is judge-made law. That issue was posed in the *Sea Clammers* case but not decided directly by the Supreme Court because it held that it did not have to reach the fundamental question of whether private individuals ever had that right because Congress had enacted an exclusive remedy and that made the issue moot.

When we discuss this in the Superfund Study Commission, at the request of Senator Randolph and Senator Stafford, our group unanimously was of the view that had the Supreme Court reached the fundamental question in the *Sea Clammers* case, it would have held that private remedies were not available—private parties did not have those rights—and that Federal common law was a very restricted law available only to the States as an incidence of their entering the union.

So, from our perspective Federal common law never existed to vindicate private rights, only State common law, which the States inherited as part of the fundamental sovereign powers of the British crown, was available to private plaintiffs.

So attempts to revive the Federal common law, in my opinion, will simply get us 5 or 6 more years of litigation until we reach a Supreme Court decision along the lines that I have suggested, that is it never existed for individuals. So you cannot put humpty-dumpty together again if he never sat on the wall.

So I think if you find that there are areas where State law is inadequate to award damages to individuals, you must try to fashion an express statutory remedy under Federal law. And you must do so directly and not try to inject all this confusion into the system by a so-called Federal common law amendment.

In my prepared testimony I set forth the way I think the Water Act works and those views are based on the first-hand knowledge of myself and my partners and we do an awful lot of practice under this act. I think there can be no question that where persons are seeking enforcement of the Clean Water Act, as distinguished from damages, that you have done a superb job, in drafting it. The act works perfectly for people who, at the right time and right place, seek to assert and protect their rights.

I realize that a question has been raised, it has been raised by Senator Stafford—and I have great respect for Senator Stafford—He raised the issue, and he posed it to our Superfund Study Commission, of whether or not the *City of Milwaukee* and *Sea Clammers* foreclosed award of damages under State law. I admit that the matter is not without doubt. But I think they did not, I think the majority—indeed all the other lawyers on the Superfund Study Commission—agreed with that conclusion. But if there is doubt, the best thing to do, as you have done in the past up here, is to get these things out in the courts and let Congress make it clear that that State common law, and the right to award those damages under it, still exist. I propose in my testimony a minor little amendment that would do that and get rid of that issue.

And I think that my time is up.

Senator CHAFEE. It is your belief that there never existed under common law the right for an individual to sue for damages, sue another State?

Mr. FREEMAN. Under State common law there is that right to the extent it has not been superseded by various statutes which various States have adopted. We must also throw in the caveat that is why those State laws become such a complicated subject. The water laws of the various States of the Union are quite varied because we have two-thirds of the States which have inherited water law based on common law from England, it governs riparian rights and the

right to sue for tort and nuisance. We have the other one-third of the States, largely in the South, starting in Louisiana and going across the Southwest, where the basis of their water law goes back to French and Spanish law, the Code Napoleon. The whole system is different in the various States.

Senator CHAFEE. I don't want to get this too complicated. You are saying that as far as a State suing a State, that that was preserved—when the States went into the Union, that they gave up that right should a Federal law intercede. They had the right but if a Federal law came along and that superseded that right, am I correct?

Mr. FREEMAN. Essentially I think that is what *Milwaukee I* and *Milwaukee II* held. It is complicated. But I think if I take a little time, it may save an awful lot of time.

Under the Constitution——

Senator CHAFEE. Stay away from the Code Napoleon if you can.

Mr. FREEMAN. I hope you stay away from it too but if we allow collateral attack on State water quality standards we will be deep in the Code Napoleon as well as the common law of England.

Under the Constitution a downstream State has an express right to sue an upstream State in the Supreme Court. We just had a decision come down in the *Arizona* case involving the Indian tribes which has been before the Supreme Court about 40 years over apportioning the water rights in the Colorado River. That original jurisdiction of the Supreme Court still exists and continues to exist because it is constitutional. In the first *Milwaukee* case a State was seeking, as a State, relief against alleged pollution coming from upstream and caused by an entity other than another State. The Court held in that limited situation the State had a right under Federal common law, which means judge-made law, to equitable remedies and that right was derived from the fact that when the State—the downstream State—entered the Union it gave up its right to make war or act as a sovereign State to do whatever sovereign States do to redress that kind of interstate situation. And that is the only extent to which the Supreme Court has held that there is a Federal common law available in this area.

Now, in *Milwaukee II* the Court came along and exercising judicial restraints there said that where, in reading your act, it sees what the Court thinks is a comprehensive scheme of regulations, that you, in effect have restricted the courts jurisdiction to award remedies outside of the scope of those set forth in the act.

In short, it is sort of analogous to the situation we have under the 14th amendment.

Senator CHAFEE. I am with you there.

What about individuals. You say individuals never had that right?

Mr. FREEMAN. The Supreme Court has never held that they had this right.

Senator CHAFEE. Right to do what, to sue the sovereign State?

Mr. FREEMAN. To sue anybody in the Federal courts for under a so-called Federal common law of tort or nuisance.

Senator CHAFEE. Let's go with Mr. Kamlet.

STATEMENT OF KEN KAMLET, NATIONAL WILDLIFE FEDERATION

Mr. KAMLET. Mr. Chairman, we see two fundamental problems with the decision in the *City of Milwaukee* case. The first is that it ignores the intent of Congress with respect to section 505(e) of the Clean Water Act which states that remedies afforded by the act's citizen suit provision were not intended to restrict any right any person might have under any other statute or common law to seek additional relief.

Second, the *City of Milwaukee's* questionable analysis also ignores the distinction between a Federal statute which prescribes the basic contours of a regulatory program which is primarily designed to secure broad national goals and the need, on the other hand, to safeguard particular impacted individuals and resources in specific cases. No matter how comprehensive a statute's coverage of industrywide and waterway-wide concerns, it is virtually impossible for a broad statute to simultaneously address the needs of individual victims. It is to fill these inevitable gaps that the retention of common law remedies is so essential. Where there is an overriding Federal interest at stake, such as where interstate pollution is occurring, particularly where adequate or impartial State law forums are not likely to be available, there is need for retention of a common law cause of action in the Federal courts.

There is nothing novel in the notion that the environmental release of a pollutant even when it is sanctioned by a Government permit can still cause a legally actionable nuisance. For example, the Supreme Court itself in a 1931 decision applied nuisance law to abate ocean dumping of garbage by the city of New York which washed up on New Jersey's beaches even though the dumping was carried out under a Federal permit under the Supervisory Harbors Act of 1888.

The perverse and incongruous result of the *City of Milwaukee* decision is that it may leave some of our citizens more vulnerable to the ravages of pollution and less able to secure judicial redress than they were prior to the advent of landmark environmental legislation which Congress enacted specificially to curb such pollution, minimize such impacts, and expand citizen access to the courts. To accept the *City of Milwaukee* result is to turn logic on its head and to impute to Congress not only deplorable sloppy draftsmanship but a futility of purpose that the courts do not usually lightly attribute to the legislative branch.

The implications and consequences of the *City of Milwaukee* decision are of particular concern because they transcend just the Clean Water Act, and problems associated with wastewater discharges under that act. At least half a dozen other major environmental statutes contain provisions virtually identical to section 505(e) of the Clean Water Act. Consequently the ability to pursue common law remedy under any of these statutes is no less open to question.

The other statutes posing this problem include: The Clean Air Act, RCRA, the Safe Drinking Water Act, the Toxic Substances Control Act, the Ocean Dumping Act, and the Surface Mining Con-

trol and Reclamation Act. And with the exception of the last one, this committee has jurisdiction over those other statutes as well.

One final note, restoration of the right to pursue common law claims in the Federal and State courts in parallel with the operation of broad environmental statutes is by no means tantamount to exposing licensed dischargers to limitless and disproportionate liability, as discussed on page 14 of my prepared statement. Traditional nuisance law and other common law remedies with their heavy reliance on notions of equity and balancing of the interests of the respective parties will continue to operate to insure that harsh and inequitable consequences do not result.

For all of these reasons, the National Wildlife Federation supports in concept the 1981 Stafford amendment which was adopted by the full Senate, which would have made clear the continued availability of common law remedies under the Clean Water Act notwithstanding the *City of Milwaukee* decision.

We support similar clarifications with respect to other environmental statutes which present the same problems, and have suggested specific amendment language in the last two pages of my prepared statement.

Thank you for the opportunity to present these views.

Senator CHAFEE. You will have a chance to respond to the points Mr. Cutler made in even more detail that this is subjecting the municipality to interminable litigation and added expense.

Mr. Cutler.

STATEMENT OF RICHARD CUTLER, ESQ., MILWAUKEE, WIS.

Mr. CUTLER. I am going to depart off my remarks in view of all you said. Through the many years I have been chairman of the Milwaukee River Watershed Committee, concerned with things like point sources, I do urge you to do something on point source. Coming back to the *Milwaukee* case——

Senator CHAFEE. You mean nonpoint source?

Mr. CUTLER. Yes, excuse me.

As to the *Milwaukee* case, I don't want to talk too much about the facts. There was no proven damage to Illinois whatsoever in that case. What did happen, was not a gap in the elaborate act that was passed. The judge, as the Supreme Court correctly found, directly increased two of the standards that were established by the permits and the national system, Wisconsin and EPA cooperating, increasing one standard 10 times and the other by 100 times and that is where the figure $1 billion comes in.

EPA under President Carter ruled that those costs were not eligible for grant consideration because they were are not cost effective and not necessary to protect Lake Michigan.

You have no question of filling the gap but a direct attack by the judiciary on the congressionel work product saying that it wasn't adequate and he was free to ignore it. I will quote from one part of the remarks where he said the court order will not be contingent on getting Federal funds. Congress in its last session amended the Clean Water Act by saying the judges should take into account the availability of funds not that it would be binding but it should be taken into account.

This judge found it should not. He also said, "the nature of the subject matter here, however, is such that my own experience and observations in life are of relatively little use to me." There were 12 different Ph. D. disciplines that testified at that trial and that is what the judge was saying, he couldn't understand all of them.

I join with other people like Mr. Freeman and Senator Proxmire in saying if you have created an act of 154 pages, regulations of 1,700 pages, congressional history of 1,000 pages, you have occupied the field and that is the expert way to do it.

Now, I think the questions that boil down and that have concerned the committee might be summarized in two groups: First one is a fait accomplis, are there gaps in the statutes and regulations? There was none in the *Milwaukee* case. Are there some gaps someplace else that would be of concern? I think Senator Proxmire was right that when the act is this comprehensive, if people see gaps they should name them and Congress should tell them that for the standards because if you don't have standards that are clear and uniform, as was your intention, what then is the person who seeks the permit to do? He has an adversary proceeding with the State natural resource department and the EPA and other people are invited and notified they may come in and urge higher effluent standards and after all that is done it starts $100 million or $1 billion programs covering many years to design, construct, and finance.

Where is the stability in the system if at this point in the adversary and governmental system with the expertise available, people like Illinois just don't choose to appear and shop later to get a judge in their own city who will make their own law. That is horrible. I think the administrative process is the right one.

The other question which I believe concerns your committee more than the question of different standards, was the remedy in damage which was not involved in the *Milwaukee* case, that was a suit to get an injunction to order Milwaukee to do more than it has already done. The *Sea Clammers* case dealt with the damage issue. I agree with Mr. Freeman, that if under the available law, as interpreted by *Sea Clammers*, there is not a remedy available to a victim of someone who has not complied with the permit, that Congress could quite appropriately make it so.

One of the things that has led to some confusion, you will read and you will hear people use the word common law meaning maybe Federal and maybe State and maybe it isn't clear. I think under the Clean Water Act that interstate water disputes, as the *Milwaukee* case was, that the Supreme Court only enunciated something 100 years old when it said that in suits involving interstate water disputes the law has been Federal under our Federal system and until the Clean Water Act it was the common law because of a lack of sufficient detail being provided by Congress.

Once the Congress acted, whether it is in clean water, or whether in the apportionment of the Colorado River, then the Supreme Court says Congress is supreme, they displace the authority of the judge to find justice by their own case-to-case method. That is an old rule and they said in *Milwaukee II,* your efforts of that wonderful, comprehensive act did achieve such a state of perfection that you didn't need a second set of standards.

Coming back to the damage question, if you feel that damages are needed, you could do that either by a small amendment to this statute or you could take it up when the 301 Superfund study goes before the appropriate committee where I understand you would be considering remedies much broader than might be invoked under the Clean Water Act.

I think the latter approach, the comprehensive approach of that fine study, is a better way to go but I know it would take longer to go that way than it would be to try to devise something here that would say that a person that was injured by a violation of a permit has a right to sue. This is a Federal statutory right. We are talking here of interstate water; we are not talking about a little creek in Vermont, or in Wisconsin where the State common law still is available between two people who are 5 miles apart. We are talking about Illinois versus Milwaukee or New York versus Vermont or Vermont versus New York.

Senator CHAFEE. Thank you very much, Mr. Cutler.

Professor Abrams.

STATEMENT OF PROF. ROBERT ABRAMS, UNIVERSITY OF MICHIGAN

Mr. ABRAMS. Mr. Chairman, Senator Stafford, I would like to thank the subcommittee for the opportunity to speak today. In these remarks I will examine three instances in which nonrecognition of Federal common law frustrates important congressional goals regarding public health and environmental quality.

City of Milwaukee II has not remained an isolated decision, rather it has become the guiding precedent for environmental cases in wide ranging fields, including water and air pollution and hazardous waste management.

Generally, the decisions have the effect of limiting the scope of Federal environmental protection to that which the EPA, as administrator of the Federal environmental laws, is willing and able to provide. As recent events involving EPA appear to demonstrate, this is not always adequate protection. Worse yet, the sterile extension of *City of Milwaukee II* denies Federal remedies for wholly foreseeable environmental dangers of the highest magnitude.

The Dow-dioxin affair exemplies how *City of Milwaukee II* preempts Federal judicial remedies for Dow's dioxin discharges. Dow's current water pollution permit does not limit dioxin discharges because EPA has not yet issued effluent limitations governing dioxin.

As recently as November 30, 1982, EPA proposed to leave dioxin unregulated pending further data collection. Dioxin is but one of 22 priority pollutants to be left unregulated. EPA has also preposed for nonregulation more than 120 nonconventional pesticides.

My point is not to belabor the failure of EPA to regulate these carcinogens and toxins. Good faith lack of data upon which to promulgate a national standard may be an acceptable reason for inaction. Instead, the example demonstrates that discharge of these chemicals into the Nation's waters is unchecked by the Clean Water Act at the present time. In section 101 of that act Congress announced the crucial policies of freeing citizens from health hazards and providing sound levels of water quality. Federal common

law complements the CWA permit system in achieving these goals. *City of Milwaukee II* has eliminated this aspect of Federal protection of the Nation's well being.

Let me note, importantly, allowing a Federal common lawsuit does not mean that an injunction will follow. It means only that a plaintiff will be allowed to put in proof that the alleged defendant-polluter is unreasonably interfering with plaintiff's rights.

Turning to the wooden extensions of *City of Milwaukee II,* the RCRA and Superfund cases are most troubling. The only cases to consider the issue, *U.S.* v. *Price* and *Philadelphia* v. *Stepon Chemical* easily found RCRA and Superfund to be comprehensive, and thus preemptive of Federal common law. Facially, the statutes appear to be complete. They detail the handling of hazardous wastes and their cleanup with a thoroughness that prompted one judge to call RCRA cradle to grave regulation.

Even if this characterization is accurate, plaintiffs should not suffer a nonsuit without an opportunity to show that their case is one which these laws do not adequately cover. *City of Milwaukee II* permits case-by-case decisions on this issue when it is too quickly involved. Judges already view it as the general rule rather than the narrow exception.

Applying *City of Milwaukee II* in RCRA cases is not only dangerous to public health, it is probably an incorrect statutory interpretation. There is strong evidence that Federal common law was intended to be available to fill the gaps in RCRA. Representative Florio, drafter of portions of RCRA, stated: "Congress never intended that RCRA was designed to replace the Federal common law of nuisance. I wrote the provision of the law, and I can authoritatively assert that it was not the intention."

Nevertheless in both RCRA cases considering the issue, *City of Milwaukee II* blocked resort to Federal common law.

Judicial conclusions about RCRA's comprehensiveness are not shared by the Federal Office of Technology Assessment. In OTA's recently issued report on Hazardous Waste Control the very first paragraph reads: "Newly established Federal regulations for hazardous waste management facilities may not effectively detect, prevent, or control hazardous releases, especially over the longer term. Moreover, some regulatory standards and controls will be set by State authorities, who may not have the resources to make technically complex decisions. Consistent levels of protection nationwide are not assured."

Under OTA's scrutiny RCRA is indeed not comprehensive, there is among others a small quantity exemption. After describing the exemption's operation, the OTA report makes clear the exemption was based on administrative convenience and not on the hazard posed by waste and its unregulated disposal.

As before, I am not here to debate the wisdom of the exemption, but it is clear that the goal of comprehensive Federal hazardous waste management would be advanced, not hindered, by the availability of Federal common law remedies in such cases.

Superfund cleanup issues are likewise critical to public health. EPA has created a calculus that governs the order in which sites should be purged of public health dangers. OTA reviews this rank-

ing system and concludes: "It is conceivable that a truly hazardous site may not score sufficiently high to receive attention * * *"

There is no acceptable reason why a Federal common law remedy should be unavailable to aid in the protection of public health.

To conclude—I have described only three of the serious gaps in Federal protection of human health and natural resources that are attributable to *City of Milwaukee II.* Reestablishing Federal common law in environmental matters is consistent with the announced policy of the Congresses that have enacted a set of excellent environmental laws. Federal common law calls for an articulated and reviewable judicial balancing. Judges would be asked to balance the reliance interest of those regulated by Federal environmental laws in being subject to a pattern of certain regulation against the reliance interest of the public in an environment free of unreasonable health hazards. Allowing this balance to be made is better than assuming statutory complexity is a certain proxy for comprehensiveness.

Thank you.

Senator CHAFEE. Thank you very much, Professor, we appreciate your thoughts.

This question is directed to Mr. Freeman and Mr. Cutler.

You seem to be arguing that compliance with a Clean Water Act permit is all that should be required here, and that compliance with the permit eliminates harmful discharge. But isn't that like a speed limit? If you assume 55 miles an hour speed limit and you are travelling at 50, well within the limits, in compliance, is that safe, under the law?

Following with that analogy, if you do less than that, you can still cause an accident and there are ways to address that. Should we not have the same principle apply here.

Mr. CUTLER. Senator Chafee, I think the analogy is a little simple. May I say that I think we are saying that compliance with an adversarial permit; that is legal compliance with it should be a defense against a judge deciding that he disagrees with the standards that were established in the adversary proceeding earlier.

I would like to add one fact not mentioned. The Supreme Court was most impressed by the recommendations you built into the statute that Illinois failed to avail itself of and the environmentalists here never mentioned and that not going to the permiting agency and urging for a higher effluent standards or a 40-mile-an-hour limit, a tougher standard——

Senator CHAFEE. Is the State of Illinois really going to get involved when the city of Milwaukee is getting its permit? After all, the State of Illinois, on that basis, would have to chase around every city that borders on Lake Michigan.

Mr. CUTLER. The State of Wisconsin did exactly that in the Minneapolis-St. Paul proceeding, Senator, and Illinois had to be notified. The act required that you notify any water that could be affected; they were so notified. Your act said that Illinois could give their position, in writing, that they favored a certain effluent standard. The Wisconsin authorities must then, in writing, give a reason if they agree or do not agree and you have appellate review built into your act. They chose not to do that, they chose to go to

the extreme of the judge made standard attempting to get what they wanted. They did; they got them to overrule the act, 10 times on advance waste treatment and 100 times on collection. Something was wrong in what they did and the Supreme Court was responding to that. I am sure they accepted review because those facts are so horrible.

Senator CHAFEE. What do you say to that, Mr. Freeman?

Mr. FREEMAN. Senator, let us start off with what goes into a permit. A permit must assure compliance with federally set technology base standards and, despite statements in Mr. Roisman's prepared testimony that those standards are set at the lowest common denominator, I can assure you, based on personal experience, particularly my 8-to-0 loss in the Supreme Court in *Crushed Stone* that those standards are not set——

Senator CHAFEE. It is a memorable decision.

Mr. FREEMAN. Yes.

Senator CHAFEE. The first that the Supreme Court has been unanimous on anything.

Mr. FREEMAN. Yes sir, and the Court said you cannot take affordability into account in granting variances from those technology base standards nor in setting the technology base standard can you look at whether or not there will be, on a case-by-case basis, water-quality benefits resulting from them.

So those are very stringent nationwide standards. They were designed by you to assure certainty in order to speed up compliance, that is one of the reasons you put in the act a requirement that if anybody wants to challenge those standards, they must appeal within 90 days, and thereafter the regulations cannot be subject to collateral attack.

Now, if you were to allow courts to act under Federal common law, if indeed you could create it constitutionally, which I doubt, to second-guess those technology base standards, you would undermine that fundamental premise of the Water Act that once they become final those technology base standards can not ever be subject to collateral attack.

Let us take the other thing that the permit has to assure. It has to assure compliance with State water-quality standards and, as section 510 says, any more stringent standards set by State law.

States and private parties can protect themselves two ways that way. First, if it is the State itself, and if we are just talking about intrastate pollution, the State can properly set its water-quality standards. If a private individual is concerned about those water-quality standards, he can act under State law to have that water-quality standard reviewed and revised. When anyone gets his permit, the State has to assure compliance with those State standards.

If we have an interstate pollution situation, the downstream State can protect itself by setting its own water-quality standards and then intervening in the permit proceeding if it believes that the discharge in the upstream State will result in a violation of its downstream standards.

So the act enable States and people who are diligent to protect themselves.

Senator CHAFEE. What about the Dow Chemical example that Professor Abrams gave, the dioxin?

Mr. FREEMAN. We have dioxin entering the water and it is a pure intrastate situation. First of all, I think you take a look to see whether or not Dow is violating its permit. Apparently it is not, it has been determined.

Mr. ABRAMS. It is not governed by the permit itself. The permit is silent as to dioxin.

Senator CHAFEE. The standards have not been set?

Mr. ABRAMS. That is right.

Senator CHAFEE. Therefore, the stuff is pouring into the stream, what do you do?

Mr. FREEMAN. The act provides two kinds of remedies: first, if it is an emergency situation, EPA is authorized by the act, I cited the section in my testimony, to act in this emergency situation to issue interim orders of an equitable nature to stop.

Senator CHAFEE. Let us see if Professor Abrams agrees with that.

Mr. ABRAMS. At least as of November 30, EPA is not intervening, they proposed to leave it unregulated for a while longer until they collect more data.

Mr. CUTLER. The statute gives them the power to do it.

Senator CHAFEE. What if EPA will not act?

Mr. FREEMAN. What can the State do? The State can change its water-quality standard and it can also act under 510, it seems to me, in an emergency-type situation, not covered by the permit, to reopen the permit.

There are provisions in the act which expressly authorize the reopening of the permit and all EPA issued or approved permits under the Water Act contain a reopen or for new occasions teaching new duties, and, so they can reopen the permit.

Senator CHAFEE. You say the State can upgrade its water standards but this is in another State.

Mr. FREEMAN. The Dow thing was soley in Michigan.

Senator CHAFEE. Therefore, the State cannot do anything about that.

Now, let us take reopening the permit. Doesn't this lead to all the problems that you and Mr. Cutler have forewarned us about, the tremendous expense, a judge writing the permit?

Mr. FREEMAN. No. It reopens it in an administrative action.

Senator CHAFEE. But here the city of Milwaukee, in good faith, has put a billion and a half dollars into this plant and suddenly the whole thing has been reopened through requesting a change in the permit.

Mr. CUTLER. It seems to me, when you have a change in the art or knowledge, and there being others in the chemical—and dioxin is an example—let us say no one did know at the time that the permit was issued, then the emergency powers allows EPA to change the permit. Citizens have the right to complain. I am sure something will happen in dioxin, the citizens going to a court and force the administrator to do what he should have done.

You have a good act; being 10 years old, not all parts have been used yet.

Senator CHAFEE. Senator Stafford.

Senator STAFFORD. Thank you very much, Mr. Chairman.

Dr. Abrams, are you part of the baccalaureate degree, or are you in the law school?

Mr. ABRAMS. I am in the law school. I teach at the law school at the University of Michigan.

Senator STAFFORD. What I would like to do, gentlemen, is to go through, in effect, a hypothetical case with you, and in the interest of your time, as well as mine, if you could make your answers quite brief, maybe that will suffice.

Let me start by assuming that the State of Vermont has a complaint about the way a city in the State of New York is polluting Lake Champlain. Before the second *Milwaukee* decision, under my assumption, I would, as the attorney general of Vermont, a job which I once had in a pre-Cambrian age, file a complaint in the proper Federal district court. In due course, the matter, as I understand it, would come before the court for a hearing. The judge would apply the Federal common law of nuisance.

Would you say that is the correct assumption.

Mr. CUTLER. Yes, before *Milwaukee II.*

Mr. FREEMAN. Assuming that the defendant is not the State of New York, but a municipality or private party.

Senator STAFFORD. Yes.

And the common law nuisance applied to the dispute between Vermont and New York or Vermont and the New York municipality, would the same common law become applicable in the other 48 States under similar circumstances? Is that a correct assumption?

Mr. CUTLER. Not necessarily. In lovely theory it is, but there are 400 judges and they do that on the facts of each case. I have heard, Senator Stafford, people say at prior panels before in committee, that judges were reasonable and would be discrete but we had, in the *Milwaukee* case, an overwhelming example that is not always true.

Mr. FREEMAN. My answer is yes, sir, but I agree with Mr. Cutler, it might take the Supreme Court.

Senator STAFFORD. Is there any other disagreement or agreement?

Mr. ABRAMS. I would like to express disagreement that the only governing common law is Federal law. You have Vermont harm done by New York pollution involved in the case. It seems to me under Vermont's long arm statute, they could claim jurisdiction to enforce their own State nuisance law. What has happened, the commission of a tort that causes an injury within the State of Vermont is well within the constitutional bounds of due process.

Likewise, in regard to choice of law, after *Hague* v. *Insurance,* I see no constitutional impediment to Vermont's law being chosen as the governing law for a nuisance suit.

Senator STAFFORD. You answered some later questions I am coming to ask.

During the course of the hearing, in my hypothetical case, New York would have the opportunity to deny that it was harming those who live in Vermont or raise, as a defense, that it was complying with a permit under the Clean Water Act or so on. Am I correct in that assumption?

Mr. FREEMAN. Again, you said New York, but you mean the source.

Senator STAFFORD. This, I gather, is really what happened of the trial court level in the second *Milwaukee* decision, that is the State of Illinois and the city of Milwaukee tried their cases before a Federal judge and Milwaukee raised as a defense that it was complying with the Clean Water Act and in due course, based on the evidence before the Court, the judge found for the State of Illinois. Am I correct in that?

Mr. CUTLER. No, Senator, that is not correct. Milwaukee, I was not the trial attorney, we were hired after the case was lost. The defense there was a State court order, they had been in violation of the permit, that was admitted, but they claimed this did not harm Illinois 85 miles away and there was elaborate testimony on whether untreated sewage from Milwaukee did travel 85 miles and had any vigor left when it got there and the judge found 6 days of the year it had some vigor left and it might cause damage, but he found no damage. But the defense there was a State court order amending the permit by saying you will do these certain things to achieve these Federal standards by given dates and that was the Federal-State answer and he said it was not, he was free to do what he chose to and he was not preempted by that State court order.

Senator STAFFORD. Is there a comment from anybody else on that?

[No response.]

Senator STAFFORD. Let us assume the same set of facts after the *Milwaukee II* decision. I filed my suit as attorney general of Vermont in the Federal district court. New York municipality, I assume, would then file a motion to dismiss for failure to State a claim, since *Milwaukee II* decision wiped out federal common law for the water pollution. Under *Milwaukee II* decision, the New York motion should be granted, is that correct?

Mr. CUTLER. In the stated facts, there was compliance with the New York permit?

Senator STAFFORD. Yes.

Mr. CUTLER. I think so, because the Supreme Court said that in interstate water disputes, and that is interstate dispute because Lake Champlain is bordered by two States, that the Federal law is the only law that could apply and the Federal law is in the statute.

Mr. ROISMAN. Before *Sea Clammers* was decided it was arguable that if the permit granted to the New York municipality did not specifically allow the particular pollution which was the subject of the Vermont action, that that was a legitimate opening.

Senator STAFFORD. I would agree.

Mr. ROISMAN. The *Sea Clammers* decision closed the door on that without a great deal of thought, but that is the result and that is the current law. You would be correct.

Senator CHAFEE. What you are saying, before the *Sea Clammers* decision, the permit had to specifically approve the discharge that Vermont was complaining about, is that right?

Mr. ROISMAN. I am saying that will be the most favorable reading that one concerned with preserving the Federal common law could make with the *Milwaukee* decision. That limits it to the specific facts of the case.

Mr. CUTLER. I agree with that.

Senator CHAFEE. After the *Sea Clammers*, the law is that if they got a permit as long as they are complying with that permit, it is all right?

Mr. ROISMAN. More than that, even if they are not complying, if you do not have any Federal law, the remedies are all in the statute. The last pages in the opinion, in the opinion in *Sea Clammers*, the court said the court has not held that federal common law of nuisance in the area of water pollution is entirely preempted by the more comprehensive scope of the FWPC, which was completely revised soon after the decision of *Milwaukee I*.

Senator STAFFORD. It is worth noting that *Sea Clammers* followed *Milwaukee* by only a month.

Mr. FREEMAN. Senator, if I can make one comment pursuing the point which Mr. Roisman has made, we have another doctrine that would be involved in that situation, called exhaustion of administrative remedies. It goes to the point whether Vermont was in effect, negligent or tardy in failing to intervene in the permit issuing procedure where if could have asserted that the permit conditions would have caused a violation of its own water quality standards in Lake Champlain and could, under that administrative process have secured more stringent limitations to prevent. The act is now written that would have permitted that.

Mr. ROISMAN. And that would all be available as a defense if there were Federal common law.

Senator STAFFORD. Basically, I think it is agreed that under the circumstances I stated, and assuming that both of the cases had been decided at the time, that a municipality would file a motion to dismiss for failure to state a claim and that the motion would be granted.

Mr. CUTLER. Senator Stafford, may I be permitted one sentence. If there is a 3-year statute limitations and someone files after 3½ years a motion to dismiss would be granted but that would not mean they would not have a remedy if they had been on the ball.

Senator STAFFORD. But those are all assumptions which we were making, what I intended to be a simple case became more complicated.

Mr. ROISMAN. What you would expect from lawyers.

Mr. FREEMAN. If in the course of the events the science, as to what is harmful or not harmful changes or if there are changes in the mode of operation of the plant or there are other factors which affect the water quality in Lake Champlain, if any of those three factors were present—then under the New York permit, which EPA insists, whether EPA issued or State issued, have a reopener clause, then Vermont could have moved to reopen the permit and secure relief.

Senator STAFFORD. Thank you.

Now coming back to the State law. Having been drawn out of Federal court and Federal law, under my assumption and the State of decision, my resource now is to sue under State law, and might I suggest, there could be two options, Vermont common law, and New York common law. Is there disagreement with that?

Mr. CUTLER. Yes. I read the *Milwaukee II* as deciding that interstate water disputes the only law is, Federal law and that Federal law is now the statute alone. That is different from if Burlington

were suing someone inside Vermont. There, I think it is grey whether the State common law claim is made as distinguished from when you cross the lake.

Mr. FREEMAN. I think there is doubt. I hesitate, being the class of 1956 Yale law to challenge my senior from the class of 1941 Yale law, but I think—isn't that issue still being presented in your ongoing case?

Mr. CUTLER. Illinois is making such an assertion, but as usual they are mistaken.

Mr. ROISMAN. Senator, speaking from higher authority, Harvard of 1963, I think the *Milwaukee* case does not give any indication that the State common law would not be available, but it certainly puts a cloud on that question. Justice Rehnquist, in his opinion speaks about the availability of State common law for intrastate pollution and whether the absence of using the word interstate is significant or not, I assume Mr. Cutler in his case, will continue a never-ending battle on that issue and eventually someone will decide. If the committee's concern is with assuring that there is a remedy where there is interstate pollution and where the permit is not adequate to deal with the problem, then it needs to speak through a legislative change. Absent that we can go through quite a number of years of uncertainty.

Senator STAFFORD. Gentlemem, I hate to say this, but I am asking the questions from the viewpoint of Michigan and Boston University, 1938 which puts me way out of date.

Mr. KAMLET. Senator Stafford, particularly if Mr. Cutler is correct as to the displacement of a State common law remedy as well as a Federal one, it raises another irony as to the impact of the *City of Milwaukee II* decision with regard to the intent of Congress in the 1972 act. It seems to me to negate the provision in section 510(l) of the Clean Water Act which expressly preserves for the States the right to adopt and enforce more stringent requirements than might otherwise exist under Federal law.

So, this is just another example of the mischief caused by the *City of Milwaukee* decision in displacing the intent of Congress established in 1972.

Senator STAFFORD. Let me ask a final hypothetical here. We are assuming but not deciding that State common law is available in a suit between States, would it be the common law of the plaintiff's State or the common law of the defendant State that might be decisive between New York and Vermont or New York municipality and Vermont over contamination of Lake Champlain.

Mr. ABRAMS. If I may speak to that. I think it would be a matter of plaintiff being able to forum shop for the preferable choice of law. If the suit was filed in New York it is very likely that New York would use its own law, they have a fancy choice of law tests that weighs interests. But certainly with the event occuring there, the suit filed there, they would apply their own law. Vermont too, will be free to apply Vermont law should the suit be filed in Vermont. In regard to the interstate pollution Vermont will say the damage took place there, its laws are familiar to its courts and constitutionally either choice of law will be permissable under the standards announced by the Supreme Court.

Mr. FREEMAN. I think the majority rule is that you look at the place where action takes place to judge the legality of the action. So in that situation, you would look to the law of the State of New York. That principle is reflected in the proposed convention between Canada and the United States which is to get around the international law problem and would permit Canada to sue, or a Province of Canada to sue, in our own courts. The explanation for that convention explains that the majority rule is that the law of the place where the action occurs governs the legality of the action. That would be codifier as part of the convention.

Senator STAFFORD. Thank you all very much. You have been very helpful with a very complicated matter for the committee.

Thank you very much.

Senator CHAFEE. I am delighted, Senator Stafford, that this has now cleared up all the problems we have before us.

I want to thank you gentlemen, we may be asking you questions in the future. We have not seen the last of this.

Thank you.

The last witness will be Mr. Olson.

STATEMENT OF JON L. OLSON, DISTRICT DIRECTOR, SANITARY DISTRICT OF ROCKFORD, ACCOMPANIED BY ROBERT COURTRIGHT AND MR. HALVORSON

Senator CHAFEE. Mr. Olson, we are glad you are here. Senator Percy was extremely anxious for you to appear. I know he will be reviewing your testimony. Senator Percy has a long interest in the Clean Water Act and has been very constructive throughout our consideration of it.

So, if you will proceed, we look forward to your statement.

Mr. OLSON. Senator, I thank you for the opportunity to come before your committee today. I wish to plead the case of a medium-size community, heavily industrialized, in our United States who sorely needs the provisions under the pretreatment portions of your amendments.

We are a community that is faced with a very severe unemployment problem in our area due to the recession. We had approximately 24 percent unemployment throughout last year and we are——

Senator CHAFEE. Twenty-four percent?

Mr. OLSON. Twenty-four percent.

Senator CHAFEE. You must have major industries.

Mr. OLSON. We have home hardware and metal finishing and——

Senator CHAFEE. What major companies?

Mr. OLSON. We have Amerock, National Lock Fastener, Elco Fastener, heavily involved in automotive fasteners as well as home hardware.

We are a community that backed Congress in 1972 when we began to understand and deal with our environmental problems. In 1972 we passed a referendum locally to provide the local dollars to meet the Federal match, and began the long arduous trip toward cleaning up our community's waste water. We desperately needed

that money and we agreed with Congress there has to be a cleanup of our receiving waters.

In order to do this, we set forth to provide one of the first user charge systems in the United States. We established an industry monitoring program and have had in place a significant enforcement program for a number of years.

We currently have a user charge, as I mentioned, which has been approved but we also have an ordinance for enforcement of the pretreatment program. This ordinance has been accepted and approved by the Federal and State EPA. We feel, based upon our performance of the past, that we can demonstrate that we can deliver to our receiving water, a water that does not contaminate that receiving water and that we can protect our plant by using local ordinances.

We understand that given the time frame as set forth in S. 431, that we would have a very short time frame to come into compliance and receive acceptance of our program but we believe our city as well as some other cities in the United States can do this. We also recognize that not all cities in the United States will be able to do this and they will have to have categorical standards.

Our appeal to you is simply to allow your bill to go forward as it is written hopefully also resist any amendments to the bill that would degrade from this part of the bill and hopefully get this sponsored through the House of Representatives and signed by the President. We need this immediately so that we can meet the time demands of 1984.

I thank you.

Senator CHAFEE. The objection to the so-called opt out that a local plant could consume a good deal of time submitting its proposal to EPA with EPA saying that it wasn't correct, make a few changes, so this could go on and on, meanwhile with the pollution continuing. What do you say to that?

Mr. OLSON. I have stated before in previous testimony that I do not support calcitrant POTW's, I am the director of the Sanitary District of Rockford. We have been working, having facilities to meet all those goals. POTW's today should be ready to meet what you are asking for.

Senator CHAFEE. What do you do? You have a jewelry industry, plating?

Mr. OLSON. Yes.

Senator CHAFEE. Now, what do you do with your sludge?

Mr. OLSON. Our sludge is land filled, it passes the EPA toxicity test.

Senator CHAFEE. Are you picking up cadmium?

Mr. OLSON. We are picking up all heavy metals through these processes.

Senator CHAFEE. And that doesn't present problems to your system?

Mr. OLSON. Well, we have developed a cadmium ordinance specifically directed at cadmium dischargers, it was passed by our board approximately 12 months ago and will go into full effect October 1 of this year. We believe as a result of an enforcement of that ordinance we would not have to treat for cadmium.

We are currently treating for cadmium.

Senator CHAFEE. How?

Mr. OLSON. By the addition of lime as a neutralizing agent. We will have a hazardous waste sludge without this treatment.

Senator CHAFEE. You will have a hazardous waste sludge without this treatment?

Mr. OLSON. Yes.

Senator CHAFEE. What will you do?

Mr. OLSON. We have to go to a hazardous waste landfill. Currently we are treating the sludge.

Senator CHAFEE. I think going into the hazardous waste site is more expensive than the treatment.

Mr. OLSON. That is correct; that is why we are treating.

Senator CHAFEE. You are suggesting you are going to give up the treatment?

Mr. OLSON. No, we will do that as of October 1 because we believe the industry can meet the ordinance deadline, we have given them a year and a half to come into compliance.

Senator CHAFEE. Any other comment?

Mr. COURTRIGHT. I would like to make one comment. There will be a significant cost, as Jon has laid out. We feel we are meeting all the environmental standards and if your bill is not passed we will have a significant cost for estimating $8 to $10 million capital cost for industry in Rockford and we would rather use that money for improving productivity, other more productive uses.

With your bill we feel we have a most cost effective——

Senator CHAFEE. Why would you have this additional cost?

Mr. COURTRIGHT. To meet the categorical standards.

Mr. OLSON. The standards necessary to meet plant protections are less stringent than categorical standards are anticipated to be.

Senator CHAFEE. OK, we appreciate it.

There will be a lot of witnesses against this opt-out provision.

Mr. OLSON. I don't believe there are very many communities in the position to be able to use that opt-out provision.

Senator CHAFEE. The general theory the bigger cities will be the ones that would be more prepared to handle whereas yours is relatively small. What is your population?

Mr. OLSON. Roughly 200,000 service population.

Senator CHAFEE. Fine. We appreciate your coming here to give this testimony and it is very helpful to us. Thank you.

We will continue the hearing tomorrow at 10 o'clock.

[Whereupon, at 1 p.m., the hearing was adjourned, to reconvene at 10 a.m., Thursday, April 7, 1983.]

[Statements and other material submitted for the record and the bills S. 431 and S. 432 follow:]

LOUIS HARRIS TESTIMONY

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
OF THE SENATE COMMITTEE ON ENVIRONMENT & PUBLIC WORKS

WASHINGTON, D.C.

DECEMBER 15, 1982

IT IS A PRIVILEGE TO BE HERE TODAY TO REPORT TO YOU ON A STUDY OF PUBLIC ATTITUDES TOWARD WATER POLLUTION CONTROL AND CONSERVATION OF WATER RESOURCES OUR FIRM CONDUCTED FOR THE NATURAL RESOURCES COUNCIL OF AMERICA. THE TIME SPENT ON THE CONCEPTUALIZATION, QUESTIONNAIRE DEVELOPMENT, FIELD WORK, COMPUTERIZATION, AND ANALYSIS OF THE STUDY BEGAN IN JUNE AND ENDED IN LATE NOVEMBER. THE SURVEY WAS BASICALLY CONDUCTED AMONG A CROSS-SECION OF 1,253 ADULTS NATIONWIDE. THIS SURVEY WAS PAID FOR BY THE NATURAL RESOURCES COUNCIL OF AMERICA, THE FISHING TACKLE MANUFACTURERS ASSOCIATION, AND THE ROCKEFELLER BROTHERS FUND. IN THE END, OR COURSE, THE SUBSTANCE AND METHODOLOGY EMPLOYED ARE THE FULL RESPONSIBILITY OF THE HARRIS FIRM.

ONE OF THE MOST COMMON CLAIMS ONE HEARS IS THAT WHILE IT IS DESIRABLE TO CLEAN UP THE ENVIRONMENT, THE PUBLIC GIVES SUCH EFFORTS AT BEST A SECONDARY PRIORITY. IN TIMES OF UNEMPLOYMENT, THE PLEA IS THAT AN ENVIRONMENTAL CLEAN-UP MUST WAIT UNTIL THERE ARE ENOUGH JOBS, OR THE CLEAN-UP OUGHT TO BE DELAYED OR EASED TO PRESERVE JOBS. IN TIMES OF ENERGY SHORT-AGES THE EFFORTS TO CLEAN UP THE ENVIRONMENT ARE ASKED TO WAIT ONCE AGAIN UNTIL ENOUGH ABUNDANT ENERGY IS AVAILABLE.

WELL, IN THIS STUDY, WE HAVE SOME DEFINITIVE LIGHT TO SHED ON SUCH CLAIMS. CURBING WATER POLLUTION IS NAMED BY A SUBSTANTIAL 74% OF THE ADULT POPULATION AS "VERY IMPORTANT' IN MAKING THE QUALITY OF LIFE "BETTER". ——→

THIS IS TWO POINTS ABOVE A COMPARABLE 72% WHO SAID THE SAME ABOUT CURBING AIR POLLUTION. WHILE A BIT LOWER THAN THE 83% WHO GIVE HIGH IMPORTANCE TO CURBING INFLATION AND THE 79% WHO SAY THE SAME ABOUT BRINGING INTEREST RATES DOWN, CURBING WATER POLLUTION IS VIEWED AS EQUAL IN IMPORTANCE TO ECONOMIC GROWTH, ALSO CITED BY 74% AS VERY IMPORTANT, AND OUTSCORES THE 65% WHO FELT THAT WAY ABOUT PRODUCING MORE ENERGY, AND THE 68% WHO SAID THE SAME ABOUT MAKING PRODUCTS AND SERVICES SAFER.

THE INESCAPABLE POINT IS THAT CURBING BOTH AIR AND WATER POLLUTION ARE GIVEN A HIGH PRIORITY OF IMPORTANCE IN THEIR OWN RIGHT BY THE AMERICAN PEOPLE. THE BASIC TRUTH, HOWEVER, IS THAT BY A SIZABLE MARGIN, THE AMERICAN PEOPLE DO NOT FEEL THEY MUST OPT FOR ECONOMIC GROWTH, ON THE ONE HAND, OR AN ENVIRONMENTAL CLEAN-UP, ON THE OTHER. OR, OF FINDING JOBS TO EASE UNEMPLOYMENT, ON THE ONE HAND, AND AN ENVIRONMENTAL CLEAN-UP ON THE OTHER. BACK IN 1975, WE FOUND THAT BY 64-22%, A SOLID MAJORITY OF THE PUBLIC THEN REJECTED THE NOTION THAT IT WAS "NECESSARY TO SLOW DOWN THE RATE AT WHICH WE CLEAN UP WATER POLLUTION IN ORDER TO GET THE ECONOMY MOVING AGAIN AND TO EASE UNEMPLOYMENT." NOW, SOME 7 YEARS LATER, IN 1982, SENTIMENT HAS GROWN EVEN MORE OVERWHELMING: BY 89-6%, ALMOST ALL AMERICANS ARE CONVINCED THAT SUCH A TRADE OFF IS NOT NECESSARY, BECAUSE THEY ARE FIRMLY CONVINCED THAT WE CAN "GET THE ECONOMY GOING AGAIN AND ALSO CLEAN UP WATER POLLUTION." ——————————→

NOT ONLY ARE THE AMERICAN PEOPLE IN FAVOR OF GIVING A HIGH PRIORITY TO AN ONGOING AND TOUGH PROGRAM TO CLEAN UP THE ENVIRONMENT, BUT THEY HAVE A WHOLE ROSTER OF SPECIFIC ENVIRONMENTAL PROBLEMS THEY WANT TO SEE ADDRESSED:

-- BY 95-4%, ALMOST EVERYONE FEELS THAT DISPOSAL OF HAZARDOUS WASTES IS A SERIOUS PROBLEM IN AMERICA.

-- BY 93-6%, AN ALMOST IDENTICAL MAJORITY FEELS THAT THE POLLUTION OF LAKES AND RIVERS BY TOXIC SUBSTANCES FROM FACTORIES IS A SERIOUS NATIONAL PROBLEM.

-- BY 88-10%, ANOTHER SIZABLE MAJORITY VIEWS POLLUTION OF LAKES AND RIVERS BY SEWAGE AS A SERIOUS PROBLEM IN THE COUNTRY.

-- BY 84-14%, A BIG MAJORITY FEEL THAT CONTAMINATED DRINKING WATER IS A SERIOUS NATIONAL PROBLEM.

-- BY 88-11%, A DECISIVE MAJORITY BELIEVES THAT AIR POLLUTION BY INDUSTRY IS A GENERALLY SERIOUS PROBLEM IN THIS COUNTRY.

-- BY 73-24%, A CLEAR MAJORITY FEELS THAT WATER SHORTAGES ARE A SERIOUS PROBLEM IN AMERICA.

-- BY 80-18%, A SUBSTANTIAL MAJORITY IS CONVINCED THAT AIR POLLUTION BY TRUCKS AND AUTOMOBILES IS A SERIOUS NATIONAL PROBLEM.

-- BY 70-2[illegible]%, A MAJORITY FEEL THAT AIR POLLUTION BY COAL-BURNING ELECTRIC PLANTS IS A SERIOUS PROBLEM IN THE NATION.

-- FINALLY, BY 61-28%, A SOLID MAJORITY OF AMERICANS FEEL THAT DAMAGE TO THE LANDSCAPE BY COAL STRIP MINING CONSTITUTES A SERIOUS NATIONAL PROBLEM.

OBVIOUSLY, ALL NINE OF THESE SPECIFIC ISSUES TESTED IN THIS SURVEY ARE VIEWED AS BEING SERIOUS IN THE COUNTRY TODAY. FOUR OF THE NINE, HOWEVER, RECEIVE SPECIAL AND URGENT SINGLING OUT BY THE AMERICAN PEOPLE: DISPOSAL OF HAZARDOUS WASTES IS SEEN AS "VERY SERIOUS" BY 74% OF THE ENTIRE PUBLIC NATIONWIDE; 65% SAY THE SAME ABOUT POLLUTION OF LAKES AND RIVERS BY TOXIC SUBSTANCES; 62% SAY THAT POLLUTION OF LAKES AND RIVERS BY SEWAGE IS "VERY SERIOUS"; AND 56% FEEL THE SAME ABOUT CONTAMINATED DRINKING WATER. PUT IT THIS WAY, BIG MAJORITIES OF THE AMERICAN PEOPLE ARE CONVINCED THAT DISPOSAL OF HAZARDOUS WASTES CONSTITUTES A VERY SERIOUS HAZARD ANYWHERE IN THE U.S., AS IS THE CASE WITH TOXIC WASTE POLLUTANTS, SEWAGE POLLUTION, OR WATER CONTAMINATION. THIS DOES NOT MEAN THAT MOST PEOPLE FEEL THAT THEIR OWN HOME AREA IS NECESSARILY FACED WITH CRISES SUCH AS THESE. INDEED, 46% FEEL THAT POLLUTION OF THEIR OWN LAKES AND RIVERS IS A SERIOUS PROBLEM, 44% THAT POLLUTION BY TOXIC WASTES IS A SERIOUS PROBLEM WHERE THEY LIVE, 33% ARE WORRIED ABOUT THEIR OWN DRINKING WATER BEING POLLUTED, AND 28% BELIEVE THEY ARE BESET WITH WATER SHORTAGES IN THEIR HOME AREA.

NOW, THE FACT THAT MINORITIES, NOT MAJORITIES, FEEL THESE PROBLEMS ARE SERIOUS IN THEIR AREA SHOULD NOT BE TAKEN TO MEAN THAT THE PROBLEMS ARE THEREFORE NOT SERIOUS FOR THE NATION. OBVIOUSLY, WHEN PROBLEMS AS SERIOUS AS THESE ARE BELIEVED TO EXIST IN THEIR HOME AREAS, THEN IT IS A MATTER REQUIRING HIGHLY URGENT ACTION. THE REAL WORRY PEOPLE HAVE IS A SENSE OF SHOCK THAT SUCH POLLUTION CAN EXIST ANYWHERE IN THE U.S. AND THE OVERHANGING WORRY THAT THEIR AREA COULD BE AFFLICTED BY THEM NEXT. INDEED, WHEN ASKED WHAT HAS HAPPENED TO THEIR OWN STREAMS, LAKES AND RIVERS OVER THE PAST 10 YEARS, 46% NATIONWIDE REPORT

WHERE THEY LIVE THEY ARE MORE POLLUTED NOW, ONLY 17% SAY LESS, AND 30% THE SAME. AND, LOOKING FORWARD TO THE NEXT 10 YEARS, 44% FEEL THEIR OWN STREAMS, LAKES, AND RIVERS WILL BE MORE POLLUTED, ONLY 17% FEEL THEY WILL BE LESS POLLUTED, WHILE 34% ANTICIPATE NO REAL CHANGE. SUCH RESULTS UNDERSCORE THE CONCERN THE AMERICAN PEOPLE HAVE THAT THEIR BASIC WATER RESOURCES ARE THREATENED BY POLLUTION AND CONSTANT AND TOUGH MEASURES MUST BE TAKEN TO KEEP THEM CLEAN OR TO CLEAN THEM UP.

SIGNIFICANT SHIFTS HAVE TAKEN PLACE JUST THIS YEAR IN BASIC ATTITUDES ABOUT EXTENSION OF THE CLEAN WATER ACT. LAST YEAR, ONLY A VERY SMALL 6% OF THE PUBLIC NATIONWIDE FELT THAT FEDERAL WATER POLLUTION STANDARDS WERE OVERLY PROTECTIVE. NOW, AN EVEN SMALLER 4% FEEL THAT WAY. A YEAR AGO, 43% FELT THAT FEDERAL WATER POLLUTION STANDARDS WERE "JUST ABOUT RIGHT", BUT THE NUMBER WHO FEEL THAT WAY NOW HAS DROPPED TO 34%. THE BIG MOVEMENT HAS BEEN ON THE DIMENSION "NOT PROTECTIVE ENOUGH", WHICH HAS JUMPED FROM 48 TO 59%, JUST IN ONE YEAR. I BELIEVE THE CLEAR IMPLICATION FROM THIS SHIFT IS NOT SIMPLY THAT THE NUMBER WHO REJECT THE CLAIM THAT THE FEDERAL LAW IS OVERLY PROTECTIVE HAS GONE FROM 91-6% TO 93-4%, BUT THAT THERE IS GROWING AND DEEP CONCERN THAT WHILE THE STANDARDS MAY BE VERY GOOD, INDEED, THE ENFORCEMENT OF THOSE STANDARDS HAS DETERIORATED, AS CONTROL OF THE FEDERAL ESTABLISHMENT HAS FALLEN INTO HANDS LESS THAN FULLY IN ACCORD WITH THE LETTER AND SPIRIT OF THE CLEAN WATER ACT OF 1972.

WHEN WE ASK DIRECTLY ABOUT THE CLEAN WATER ACT, A 94-3% NEARLY UNANIMOUS MAJORITY WANTS IT KEPT AT LEAST AS TOUGH AND INDEED, FULLY 60% WANT TO MAKE IT "STRICTER."——————————→

WANT TO MAKE IT "STRICTER." LAST YEAR, A COMPARABLE 93-4% MAJORITY SHARED THE SAME VIEW, BUT THE NUMBER WHO WANTED THE LAW MORE STRICT WAS A LOWER 52%. THUS, THE SENTIMENT FOR MAKING CLEAN WATER TOUGHER RATHER THAN EASING IT HAS RISEN FROM 52 TO 60% IN A YEAR. NOR ARE PEOPLE IN A TEMPORIZING MOOD ON ENVIRONMENTAL MATTERS. EVEN THOUGH NOT MANY EXPERTS THINK THAT ALL THE NATION'S WATERS WILL BE MADE "FISHABLE" AND "SWIMMABLE" BY 1983, AS SET FORTH IN THE ORIGINAL CLEAN WATER ACT, BY 78-17%, A BIG MAJORITY ARE CONVINCED THAT THE JOB CAN BE DONE. THE PUBLIC HAS BOTH THE FAITH THAT THE TASK CAN BE ACCOMPLISHED AND IS DEEPLY COMMITTED TO GETTING THE JOB DONE.

THUS, MAKE NO MISTAKE ABOUT IT, ANY EFFORT TO WEAKEN OR TO EASE THE CLEAN WATER ACT WILL BE VIEWED BY THE AMERICAN PEOPLE AS A SERIOUS AND INEXCUSABLE VIOLATION OF A CLEARLY EXPRESSED AND DEEPLY FELT PUBLIC MANDATE.

NOW, LET'S GET DOWN TO SOME OF THE RAZOR'S EDGE ISSUES THAT ARE THE HEART OF THE BATTLE OVER CLEAN WATER TODAY. ONE OF THE 1977 AMENDMENTS TO THE CLEAN WATER ACT, AS YOU KNOW, SPECIFIES THAT FACTORIES MUST INSTALL THE BEST AVAILABLE POLLUTION CONTROL TECHNOLOGY (BAT) BY 1984. SOME INDUSTRIES WOULD LIKE TO CHANGE THE ACT SO THAT THE GOVERNMENT COULD GRANT WAIVERS OR VARIANCES FROM THE BAT REQUIREMENT UNDER CERTAIN CIRCUMSTANCES. WE ASKED A QUESTION ABOUT THIS MATTER IN A WAY THAT BENT FAR OVER BACKWARDS TO GET THE FULL WEIGHT OF THE OPPOSITION TO BAT INTO THE QUERY. WE ASKED: "THE CLEAN WATER ACT NOW REQUIRES FACTORIES TO INSTALL THE LATEST, MOST EFFECTIVE SYSTEMS AVAILABLE TO CLEAN UP THEIR TOXIC POLLUTANTS. ——————→

GIVEN THE HIGH COST OF MEETING THIS REQUIREMENT, WHICH ONE OF THE FOLLOWING POLICIES DO YOU THINK THE GOVERNMENT SHOULD FOLLOW -- REQUIRE ALL FACTORIES TO INSTALL THE BEST ANTI-POLLUTION SYSTEMS THEY SAY THEY CAN AFFORD, OR REQUIRE ALL FACTORIES TO INSTALL THE BEST ANTI-POLLUTION SYSTEM AVAILABLE, EXCEPT THOSE FACTORIES WHICH WOULD BE FORCED TO SHUT DOWN AS A RESULT, OR REQUIRE ALL FACTORIES TO INSTALL THE BEST ANTI-POLLUTION SYSTEMS AVAILABLE", THE LAST OBVIOUSLY WITHOUT ANY EXCEPTIONS OR EXEMPTIONS BASED ON COST. WELL, NO MORE THAN 21% OPTED FOR INSTALLING BAT ON THE BASIS OF WHAT THEY CAN AFFORD, AND 23% MORE OPTED FOR BAT, EXCEPT WHEN IT WOULD MAKE THE PLANT CLOSE DOWN. A SOLID 53% MAJORITY SAID IT SHOULD BE MANDATORY THAT BAT BE INSTALLED, REGARDLESS OF COST OR CONSEQUENCES.

WE ASKED MUCH THE SAME TYPE OF QUESTION, WHEN WE QUERIED THE CROSS-SECTION: "DO YOU THINK FACTORIES SHOULD BE REQUIRED TO INSTALL THE BEST ANTI-POLLUTION SYSTEMS AVAILABLE, EVEN IF THIS MEANT THAT FEWER JOBS WOULD BE AVAILABLE OR NOT?" BY 65-27% NATIONWIDE, A BIG MAJORITY SAID PUT IN BAT, EVEN IF THAT MEANS FEWER JOBS. ALL GROUPS FAVOR BAT BY MARGINS OF 2 TO 1 OR BETTER. IN THE WEST, THEY SUPPORT IT BY 75-18%, AMONG UNION MEMBERS A 65-28% MAJORITY FAVOR BAT, AND SKILLED LABOR OPTS FOR IT BY 73-21%.

WE THEN ASKED ANOTHER TRADE-OFF, OFFERING PEOPLE A CHOICE BETWEEN WAIVING BAT FOR TOXIC POLLUTANTS OR CAUSING THE COMPANY INVOLVED TO LOSE MONEY, SHUT DOWN THE FACTORY, AND LAY OFF WORKERS. BY AN OVERWHELMING 86-12%, PEOPLE SAID THAT THE WAIVER OR VARIANCE SHOULD NOT BE GRANTED.

IN THIS SURVEY, WE PROBED IN CONSIDERABLE DEPTH ON THE ISSUE OF COST-BENEFIT ANALYSIS, ANOTHER OF THE KEY AND PIVOTAL ISSUES AT STAKE IN THE CLEAN WATER DEBATE. WE ASKED: "SOME PEOPLE FEEL THAT THE GOVERNMENT SHOULD NOT ORDER INDUSTRIES TO CLEAN UP THEIR WATER POLLUTION UNLESS IT CAN BE SHOWN THAT THE BENEFITS OF THE CLEANUP JUSTIFY THE COSTS INVOLVED. OTHERS DISAGREE AND SAY THE VALUE OF ELIMINATING UNSAFE POLLUTANTS IN WATER CAN'T BE MEASURED IN DOLLARS. WOULD YOU FAVOR CHANGING THE CLEAN WATER ACT SO THAT THE GOVERNMENT COULDN'T ORDER AN INDUSTRY TO CLEAN UP ITS WATER POLLUTION IF THE COSTS DIDN'T JUSTIFY IT, OR WOULD YOU OPPOSE SUCH A CHANGE IN THE CLEAN WATER ACT?" BY A STRIKING 74-23%, A SOLID MAJORITY SAY THEY WOULD OPPOSE CHANGES EVEN IF THE COST DIDN'T JUSTIFY IT. OBVIOUSLY, PEOPLE MEAN BUSINESS ON THE SUBJECT OF CLEANING UP WATER POLLUTION.

OR TAKE THE CASE OF SAFE DRINKING WATER. BY 92-7%, A BIG MAJORITY OF THE PUBLIC REPORTS THAT DRINKING WATER THAT COMES OUT OF THEIR TAP OR FAUCET IN THEIR HOME IS EITHER "VERY" OR "PRETTY" SAFE. DESPITE THIS CONFIDENCE, NONETHELESS, BY 65-33% A SOLID 2 TO 1 MAJORITY OF THE PUBLIC WANT TO FOLLOW A POLICY IN THE RENEWAL OF THE SAFE DRINKING WATER ACT THAT IS ALSO UP FOR REAUTHORIZATION WHICH STATES "CONTAMINANTS IN DRINKING WATER SUPPLIES OUGHT TO BE CLEANED UP IF THERE IS ANY CHANCE THAT THEY WILL BE DANGEROUS TO HUMAN HEALTH, REGARDLESS OF THE COST." EVEN THOUGH THEY THINK THEIR DRINKING WATER SUPPLY IS SAFE, PEOPLE WANT TO TAKE ABSOLUTELY NO CHANCES WITH THEIR DRINKING WATER WHERE HUMAN HEALTH AND SAFETY ARE CONCERNED. ANY PROVISION THAT REQUIRES PROOF OF "CLEAR DANGER" WILL MEET WITH STIFF PUBLIC RESISTANCE.

NOW, BY 1987, IT IS ESTIMATED THAT THE TOTAL COST OF COMPLIANCE WITH THE CURRENT STANDARDS OF THE CLEAN WATER ACT WILL BE $20.4 BILLION, WHICH WORKS OUT TO LESS THAN $100 FOR EVERY PERSON IN THE COUNTRY. IT IS FAIR TO ASSUME THAT CONSUMERS DO END UP PAYING MUCH OF THE COST THROUGH HIGHER PRICES IN PRODUCTS AND HIGHER TAXES. THUS, IT IS NOT UNCOMMON TO HEAR THIS KIND OF ARGUMENT, "IT'S ALL WELL AND GOOD THAT THE PUBLIC WANTS STRICT ANTI-POLLUTION LAWS AND REGULATIONS, BUT IF THEY AREN'T WILLING TO FOOT THE BILL FOR THESE EFFORTS, THEY CAN HARDLY EXPECT TO SEE THE GOVERNMENT KEEP EXISTING LAWS AND REGULATION AS TOUGH AS THEY ARE NOW." FURTHERMORE, IT'S EASY FOR PEOPLE TO SAY THAT THEY ARE WILLING TO SEE SACRIFICES MADE FOR THE SAKE OF CLEANER WATER -- BUT THEY'D FEEL DIFFERENTLY IF THEY KNEW IT MEANT MONEY COMING OUT OF THEIR POCKETS."

IN THIS SURVEY, PEOPLE WERE ASKED BLUNTLY IF THEY WOULD BE WILLING TO PAY $100 A YEAR MORE IN TAXES AND HIGHER PRICES FOR CLEAN AND SAFE WATER. BY A THUMPING 70-26%, A SOLID MAJORITY SAID THEY WERE WILLING TO PAY THE EXTRA $100. EVEN AMONG THE 26% WHO WOULDN'T PAY THE $100, ONLY 11% ARE DIE-HARDS WHO WOULDN'T PAY SOMETHING LESS THAN $100 MORE TO KEEP WATER CLEAN AND SAFE.

ANOTHER SECTION OF THIS STUDY DEALS WITH THE ROUGHLY 70 MILLION ACRES OF WETLANDS AND THEIR PRESERVATION. A SUBSTANTIAL 83% OF THE PUBLIC NATIONWIDE FEELS IT IS "VERY IMPORTANT" TO "KEEP THE WETLANDS FREE FROM FURTHER DESTRUCTION." ——————————————————————————→

A BIG 69% WANT SUCH FEDERAL STANDARDS OVER THE WETLANDS MADE MORE STRICT AND 22% MORE WANT THEM KEPT AS THEY HAVE BEEN. ONLY 3% WANT THEM LESS STRICT. THUS, BY 91-3%, AN OVERWHELMING MAJORITY IN GENERAL DOES NOT WANT ANY EASING OF STANDARDS FOR THE PRESERVATION OF THE WETLANDS.

HOWEVER, WHEN ASKED WHOM THEY WOULD TRUST MORE TO MAINTAIN STRICT STANDARDS FOR PRESERVING THE NATION'S WETLANDS -- GOVERNMENT OFFICIALS AT THE FEDERAL OR AT THE STATE AND LOCAL LEVEL -- THE RESULT WAS A STAND-OFF: 48% PREFERRED FEDERAL AND 48% PREFERRED STATE AND LOCAL STANDARDS TO PREVAIL.

FOR MANY YEARS, IT HAS BEEN ASSUMED IN THE ENVIRONMENTAL AREA THAT ADVOCACY OF FEDERAL AUTHORITY ON STANDARDS AND ENFORCEMENT MEANT STANDING FOR TOUGH AND STRICT RULES GOVERNING POLLUTION. ADVOCACY FOR STATE AND LOCAL CONTROL, FAVORED BY MANY INDUSTRY GROUPS AND THOSE OPPOSED TO THE CLEAN AIR AND CLEAN WATER ACTS, WAS TAKEN TO MEAN MORE VARIABLE STANDARDS AND MORE DIFFUSED ENFORCEMENT. IN THIS SURVEY, THESE ASSUMPTIONS MAY WELL BE CAST IN DOUBT. FOR EXAMPLE, BY 55-41%, MEN WHO ARE LESS INCLINED TOWARD TOUGHER ENVIRONMENTAL CONTROLS, FAVOR FEDERAL RATHER THAN STATE AND LOCAL ENFORCEMENT OF WETLANDS STANDARDS. ON THE OTHER HAND, WOMEN, WHO ARE MUCH MORE PRO-ENVIRONMENTAL CONTROLS, FAVOR STATE AND LOCAL CONTROL BY 56-40%. CONSERVATIVES FAVOR FEDERAL CONTROLS, WHILE MODERATES FAVOR STATE AND LOCAL CONTROL OVER WETLANDS. PEOPLE IN THE SOUTH, WHERE ENVIRONMENTAL CONCERNS ARE NOT AS HIGH AS IN OTHER REGIONS, FAVOR FEDERAL ENFORCEMENT, WHILE PEOPLE IN THE WEST, WHERE SUPPORT FOR TOUGH ENVIRONMENTAL STANDARDS IN HIGHEST, SUPPORT STATE AND LOCAL CONTROL BY 51-43%. ——————————→

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I BELIEVE THE ANSWER MAY LIE IN THE PRECEIVED CHANGING ROLE OF THE FEDERAL GOVERNMENT UNDER THE REAGAN ADMINISTRATION. THOSE IN CHARGE OF RUNNING ENVIRONMENTAL PROGRAMS IN WASHINGTON TODAY ARE WIDELY VIEWED AS WANTING TO EASE STRICT ENFORCEMENT OF FEDERAL ENVIRONMENTAL CONTROLS. IT IS EVIDENT THAT THE AMERICAN PEOPLE WANT STRICT ENVIRONMENTAL CONTROLS, BUT ALSO ARE FEARFUL THAT THOSE NOW VESTED WITH RESPONSIBILITY OF SETTING AND ENFORCING STANDARDS ARE QUITE DEDICATED TO DOING JUST THE OPPOSITE. IN TURN, THIS HAS MOOTED AND CLOUDED ANY CLEAR-CUT CHOICE IN THE FEDERAL VS. STATE AND LOCAL CONTROL ISSUE. OBVIOUSLY, THE PUBLIC WOULD LIKE TO HAVE CONTINUATION OF FEDERAL CONTROLS, BUT IS WORRIED THAT THOSE NOW IN AUTHORITY WILL NOT ENFORCE EITHER THE SPIRIT OR THE LETTER OF THE LAW.

AS THE CONGRESSIONAL PROCESS DEALS WITH RENEWAL OF THE CLEAN WATER ACT, AN ALERT PUBLIC WILL BE DRAWING A JUDGMENT NOT ONLY ON HOW WELL THE BASIC PROVISIONS OF THE ACT ARE KEPT AND STRENGTHENED, BUT ALSO WHAT SAFEGUARDS ARE INCLUDED TO MAKE CERTAIN STRICT STANDARDS ARE ENFORCED.

TESTIMONY OF RUSSELL W. PETERSON

PRESIDENT

NATIONAL AUDUBON SOCIETY

BEFORE THE

ENVIRONMENTAL POLLUTION SUBCOMMITTEE

OF THE SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

April 6, 1983

Good morning, Mr. Chairman, distinguished members of this Committee. I appear before you today on behalf of the National Audubon Society and its half million members. Audubon shares a concern for cleaning up America's waterways with many environmental and citizen organizations. The National Wildlife Federation, the Natural Resources Defense Council, the Environmental Policy Institute, the Sierra Club, Trout Unlimited, the Clean Water Action Project, the Izaak Walton League, Friends of the Earth, the League of Women Voters and Audubon are working together to assure reauthorization of a strong Clean Water Act. We look to you, Mr. Chairman, and to the other members of this Committee for leadership in addressing these concerns and for responsible approaches to maintaining and improving the quality of our nation's waters.

I need not remind you, I am sure, that achievement and maintenance of clean water remains a high priority of the American public. In a poll recently conducted by Louis Harris for the Natural Resource Council of America (December 1982) over 74 percent of people interviewed stated that curbing water pollution is "very important" in making the quality of their lives better. Nine out of ten Americans believe that economic growth is consistent with clean water. Forty-six percent of the people interviewed believe that the quality of their own streams, lakes and rivers has gone done; 44 percent believe that this quality will go down even further in the next decade. Over 59 percent feel that existing federal water pollution standards are not protective enough, with only 4 percent believing that they are overly protective. When asked directly about the Clean Water Act, 94 percent want to keep it at least as tough as it is, while only 3 percent opted for weakening the Act, and 60 percent want to make it tougher. This latter number has risen dramatically by 8 percent in just a year's time. Fifty-three percent said it should be mandatory to install the best available technology (BAT), regardless of costs or consequences. Those polled voted more than two to one for a strong Clean Water Act, even if the result was fewer jobs. By a ratio of 86 to 12 the people opposed BAT variances even if it means a factory must shut down and jobs lost. Seventy percent of the people interviewed were willing to pay an extra $100 per year to achieve clean and safe water. Eighty-three percent favored protecting our nation's wetlands.

It is clear to us that the American public (1) wants clean water even at some cost to the individual and (2) believes the Clean Water Act is an important and effective means of achieving that goal.

Mr. Chairman, this year Congress has a unique opportunity to respond to the will of the American public by preserving and strengthening what we believe to be one of the best national environmental statutes ever enacted. The decisions made by this session of Congress will have much to do with determining when the statute's original goal of achieving fishable and swimmable waters nationwide will be realized. This Committee can turn back proposals, which I am sure will be offered to you during these hearings, to weaken this law through excessive deadline extensions, variances and other amendments that define away the pollution problems caused by industrial facilities, electric power plants, federal facilities and dams. This Committee has an opportunity to improve toxic chemical controls and to begin new initiatives to solve the long-neglected environmental and economic problems caused by non-point-source pollution. These steps must be taken now, to ensure that continued progress is achieved in improving water quality.

While there has been remarkable improvement in the quality of some of America's water in the eleven years since the original Clean Water Act was passed, much more remains to be done. The industrial and population growth of this country in the last

decade has put new pressures on our water quality and, although the statute in its present form is enabling us to hold our own and prevent further degradation, more must be done to achieve needed improvement.

Let me illustrate what I mean:

-- Over 3000 pounds of toxic pollutants continue to be discharged daily into the Niagara River, a source of water supply for over one million people.

-- Commercial and recreational fishing is still being curtailed in hundreds of miles of rivers due to heavy concentrations of PCBs, mercury, pesticides and other dangerous pollutants in fish.

-- The U.S. Geological Survey's national stream monitoring program has found concentrations of cadmium, copper and lead exceeding EPA water quality limits in over half the samples taken.

-- More than half the wetlands that once covered the lower 48 states have been destroyed.

-- Nearly eighty percent of all water basins monitored by the U.S. Environmental Protection Agency are affected by discharges of one or more conventional pollutants.

Each year, American industry discharges over four hundred million pounds of toxic chemicals into our nation's waterways and public sewers. EPA has estimated that over thirty percent of all water basins are affected by heavy metals and other toxic materials. Non-point sources of pollution contribute over half of the pollution flowing into our nation's waters. Over 6.4 billion tons of sediment per year wash into our streams from farming, construction, mining, and road-building activities. Shellfish beds have been closed and striped bass populations are declining in some of our most productive estuaries.

Mr. Chairman, you and Senator Randolph have introduced a bill (S.341) which demonstrates your resolve to achieve the goals of the 1972 law.

Last summer, your Committee received extensive testimony from the environmental community regarding administration and industry-backed proposals to weaken the Clean Water Act. Today, I will suggest ways your bill can be strengthened to be an even more effective means of achieving clean water in the next decade.

FIRST, your bill proposes allowing municipalities to "opt out" of the pretreatment program established in Section 307 of the Act, upon minimal showings.

It is our position that a case has yet to be made that a pretreatment opt-out provision, such as yours, is necessary. The pretreatment program has not yet had a chance to work because of EPA's delays in issuance of governing categorical standards. The pretreatment program should be given a chance to work before legislative revisions to its design or concept are made.

SECOND, it is imperative that EPA begin now to devise the next generation of controls on toxic pollution discharges. After years of delay, the agency has begun to issue industry-by-industry regulations and is expected to complete that job by mid-1984. Because these are "technology-based" controls not necessarily pegged to stream quality, no one knows whether they will be sufficient to protect water quality and human health. We already know, in certain areas of industrial concentration, the BAT requirement simply is not enough to do the job. While Section 301 of the Clean Water Act authorizes EPA to go beyond BAT to clean up these waters, the agency must be directed by Congress to identify which water bodies will require further protection and then to move promptly to devise targeted clean-up strategies to achieve the Act's goals. We ask that you amend S.431 to address this growing problem.

THIRD, it is time to begin doing something about non-point-source pollution. Further study is not needed, and here we disagree with your proposed legislation. We have had a decade

of study under the 208 program which has resulted in data which can be used now to develop control strategies at the state and local level under a system of federal economic and regulatory incentives. Non-point-source pollution control should be accomplished through development of best management practices to be applied to those sources that are determined to be the most significant contributors of this form of pollution. Such management practices include contour plowing, establishing greenbelts and providing catchment basins. Development and implementation of these controls should take place at the state and local level under federal oversight.

FOURTH, your bill, Mr. Chairman, contains a provision that recognizes and addresses the dangers presented by EPA's 1982 proposal to encourage the downgrading of state water quality standards. We support your effort to prevent any downgrading of use-designations in effect as of January 1983. This is essential to achieve the statute's fishable and swimmable goal.

We urge you also to consider adding specific protections to the statute for pristine and outstanding national resource waters, like those in our park, wildlife refuge, and wild and scenic rivers sytems.

In addition, we propose that the Act require state and local governments to identify those waters which are not meeting

applicable state water quality standards and to alert citizens to the public health hazards associated with these waters.

FIFTH, bays and estuaries are among our most unique and productive natural resources. The fragile balance of these ecosystems is threatened as never before by increasing concentrations of both non-point and point source pollution. We commend you, Mr. Chairman, for your recognition of these problems and for the addition of earmarked funds to the statute to help two of our most important bays (Chesapeake and Narragansett Bays). However, we would hope that you might consider expanding this assistance to other bays in need through some administrative mechanism overseen by EPA and by adding language, appended to this testimony, which would give states guidance on how to work with each other to manage these estuaries on a watershed or river basin basis with EPA's assistance. For unless the upstream causes of pollution which degrade these water bodies are addressed in a broad multi-state management framework, the causes of pollution will persist and our bays will continue to die. I need cite only one example to illustrate my point, and that is that the most significant source of non-point-source pollution to the Chesapeake Bay is not Maryland or Virginia or even my home state, Delaware, but New York. Until New York is brought to the management table with other states contributing pollution to the Chesapeake Bay, one of the most serious forms of pollution to that Bay will not be addressed.

SIXTH, discharges by dams continue to degrade water quality, killing fish, altering downstream aquatic habitat, and reducing the capacity of downstream waters to assimilate the discharge of pollutants from other sources.

The total damage to downstream water quality and the value of the downstream fishery from dams is unknown but significant. We do know the value of our national freshwater sport fishery is well over $11 billion annually and the demand on that fishery is estimated to double every twenty years. However, most streams are now regulated by dams, for which changes in operation could improve downstream water quality and produce substantial economic benefits.

Contrary to the fears of many, there are not two million dams which affect water quality. In fact, the number of such dams is small -- less than 3,500. These are high dams, over forty feet, which have large reservoirs, a storage capacity of 1,000 acre feet and surface area of 500 acres. These dams should be required to operate in a manner which minimizes harm to water quality and to use new, low-cost technology which improves the quality of dam discharges.

Finally, we would ask this Committee to consider clarifying the original intent of the 1972 law that federal common law remedies be available for citizens injured by the effects of

and jobs more secure by environmental protection laws. A 1979 study by CEQ estimated that by 1985 the national benefit from water pollution control, assuming strict enforcement of the Clean Water Act, would be $12.3 billion per year from cleaner water for recreational use, improved property values and from enhanced beauty.*

Thank you for the opportunity to appear before you today. Representatives of other conservation and citizens organizations will provide greater detail on specific proposals for strengthening the Clean Water Act.

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*Fear at Work: Job Blackmail, Labor and the Environment, Richard Kazis and Richard L. Grossman (Fall, 1982).

ESTUARIES

Section 319

Section 319(a) Findings and Purpose

Congress finds that:

(1) estuaries are national resources, the productivity and vitality of which are being decreased by pollution from both point and non-point sources, by diversion of fresh water and by overuse, requiring the initiation of special management and protective measures at all levels of government;

(2) each estuary is a unique ecosystem, the dynamics and behavior of which must be understood as a predicate to effective management;

(3) problems affecting estuaries are not confined to the state or states in which the estuary is located, but can arise in any state in the estuarine zone;

(4) some estuaries and the causes of their degradation require further study before completely affective management plans can be implemented; and

(5) the several states do not possess sufficient resources or incentives to conduct the necessary research or to implement needed protection.

WHEREFORE, Congress declares it to be in the national interest to recognize the unique values of estuarine systems and to protect those systems from continued pollution and degradation.

Section 319(b) Definitions

"estuary" means all or part of the mouth of a river or stream or other body of water having unimpaired natural connection with the open sea and within which the sea water is measurably diluted with fresh water derived from drainage within the estuarine zone.

"estuarine zone" or "estuarine system" means an environmental system consisting of an estuary and those transitional areas which are essentially influenced or affected by water from an estuary, such as but not limited to, salt marshes, wetlands, coastal and intertidal areas, bays, lagoons, harbors, inshore waters, and channels. The term "estuarine zone" or "estuarine system" shall also mean the estuarine basin or estuarine watershed, consisting of the estuary and all tributaries that are within that basin or watershed.

"management conference" means a formal conference of state agencies with jurisdiction over matters affecting the estuary which is the subject of the conference, the Administrator and, as the Administrator deems necessary, of other interested federal agencies, where matters of interstate concern have arisen, the purpose of which is the development of a plan for the management of the estuary

"non-point source pollution" means all pollution affecting water quality and not originating from a discrete discharge point, including, but not limited to, sediment, nutrients, pesticides, bacteria, toxics, oil, hard rock minerals, sand and gravel, and coal.

"best management practices" means those practices either mandated in a management plan or as part of a specific permit for an activity affecting an estuary or the estuarine zone which will control or reduce the pollution or activity which is adversely affecting the estuary from either a point or non-point source.

Section 319(c) Grants

(1) The Administrator is authorized and directed to make grants to states within the estuarine zone for the purpose of:

(a) reducing nutrient loads and toxic discharges from sewage treatment plants;

(b) assessing the impact of fresh water diversion on anadramous fish and shellfish;

(c) modeling and monitoring the behavior of pollutants in an estuarine system;

(d) developing best management practices for the control of non-point source pollution; and

(e) assessing, understanding or developing the technology to control individual or cumulative adverse impacts on estuarine systems.

(2) The Administrator is also authorized to make grants to qualifying public or private universities to achieve the purposes of Section 319(c)(1)

Section 319(d) Management Conferences

(a) Whenever the Administrator determines that the effective management of an estuary requires the implementation of controls in more than one state, he shall convene a management conference.

(b) The purpose of the management conference shall be:

(1) development of a comprehensive management plan for the estuary which is the subject of the conference; and

(2) coordinated implementation of the controls and practices which are recommended in the management plan.

(3) the management conference shall be empowered to establish priority corrective actions and compliance schedules to address the most serious problems.

(c) controls and practices which can be implemented in a management plan include, but are not limited to:

(1) development of consistent water quality standards for the entire estuarine zone covering all pollutants discharged in significant amounts, set at levels consistent with the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife, and to allow recreational activities in and on the estuary.

(2) development of toxicity based effluent standards for important toxic pollutants.

(3) development of water quality based effluent limitations for key point source dischargers.

(4) best management practices to control non-point source pollution, maintain necessary flows for protection and propagation of a balanced indigenous population of shellfish, fish and wildlife and to allow recreational activities in and on estuaries.

(5) Water quality standards and effluent limitations adopted under this Section shall be promulgated in accordance with the requirements of Section _____. The development of any standard, limitation or practice shall be consistent with the public participation requirements of Section _____.

(d) The minimum duration of any management conference convened by the Administrator under this Section shall be five years. The Administrator has the authority to reconvene or extend the life of a management conference for additional five-year periods as necessary.

(e) any activity requiring approval by a federal, state or local agency or any proprietary activity by a federal, state or local agency must be consistent with the management plan adopted by the management conference.

(1) a determination of consistency shall be a specific permit finding by the permitting agency.

Section 319(e) Authorization

(1)$___ million dollars shall be authorized to the Administrator for:

(a) research grants to the several states and qualifying universities

(b) administration of management conferences

(c) technical and regional work by affected states in the estuarine zone for modeling, monitoring and implementation of management plans .

Amend Section 402

To require that NPDES permits contain a cumulative assessment of the impact of the specific discharge on the downstream estuary. If more than one state is involved then implementation of this requirement must await implementation of the management plan.

TESTIMONY
ON BEHALF OF
NATIONAL ASSOCIATION OF MANUFACTURERS
PRESENTED BY
HAROLD JENSEN
DIRECTOR
ENERGY CONSERVATION AND ENVIRONMENTAL CONTROL
WARNER-LAMBERT COMPANY
"CLEAN WATER ACT AMENDMENTS"
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
APRIL 6, 1983

Introduction

This testimony is presented on behalf of the National Association of Manufacturers(NAM). I am Harold Jensen, Director of Energy and Environmental Control for Warner-Lambert Company, Morris Plains, New Jersey. I serve as Chairman of the Water Task Force of the NAM Environmental Quality Committee.

NAM is a voluntary association of more than 12,000 enterprises engaged in manufacturing in the United States. Many of its members are substantially affected in their manufacturing procedures and in their production costs by the requirements of the Clean Water Act. Industry overall has spent billions of dollars to comply with those requirements and is continuing to do so. It is of vital importance to small business and larger business alike that the requirements of the Act be tailored so as to achieve the control of water pollution through sound and effective engineering methods.

In January of 1982, NAM's recommendations for essential changes in the Clean Water Act, a product of nearly a year's

19-871 O—83——6

effort, were published by our Environmental Quality Committee. This publication, updated to March, 1983, discusses in some detail the reasonable and needed changes that will strengthen the Clean Water Act while enhancing our ability to meet our national water quality objectives in a more efficient and effective manner. In order to make my oral statement brief, I would ask at this time that this lengthier document be made a part of the record.

Congress Must Recognize that Industrial Compliance with Clean Water Act Requirements has been Unsurpassed

There are four basic and distinct sources of water pollution in this country: (1) natural, "background" pollutants that appear in our rivers and streams not as a result of human activity; (2) "non-point sources" of water pollution that are a result of runoff from agricultural, urban street wash, construction, silvicultural and other activities; (3) publicly-owned treatment works (POTWs) that treat wastewater from industrial, residential, commercial, and institutional sources and then discharge the treated effluent; and (4) industrial sources that treat their own wastewater before discharging it. Introduction of natural pollutants cannot be controlled and this natural background should be taken into consideration in any control program. Non-point sources have long been recognized as being a major contributor to water pollution, but have not been effectively addressed. POTWs have a rather spotty performance and Congress has rightfully begun to take steps to improve it.

Of the four sources, only direct industrial dischargers have done the job required of them by Clean Water Act regulations.

EPA has reported that in the case of POTWs, for instance, at any given point in time 50 to 75 per cent of the plants are in violation of their permits. A November 1980 General Accounting Office Report surveyed 242 POTW plants in 10 states, and found that 87 per cent were in violation of their permit and 31 per cent, in GAO's opinion, were in serious violation. Direct industrial dischargers, on the other hand, report 90-95 per cent plus permit condition compliance rate. From this, it is obvious that the most hopeful areas for continued dramatic improvement in water quality lie not with direct industrial dischargers, but with POTWs. The following is an extract of some of our major recommendations:

National Pollutant Discharge Elimination System (NPDES)

--When EPA grants a State permit-issuing authority, EPA should restrict its review to randomly selected permit applications. The permit, as proposed by the State, should be issued unless the review by EPA discloses an error in the use of promulgated regulations. This will speed up the permitting process and reduce State and EPA staff requirements.

--EPA should limit its information requirements to the substances subject to national guidelines. Policy issues (such as monitoring requirements) which are not issued

promulgated regulations should not be factored into the individual permit being reviewed by EPA. Again, this will make the permitting system more effective.

-- EPA or the State should be required to issue the permit within 180 days of receipt of the initial application or deny the permit on a sound technical basis.

-- NPDES permits should be issued for at least ten instead of five years. The permit renewal process every five years can be time-consuming and counter-productive especially where operational limits have not changed.

-- Uniform national categorical pretreatment standards should be eliminated and statutory compliance repealed. POTW authorities should have the responsibility and authority to implement their own pretreatment programs which would include the establishment of local pre-treatment standards consistent with the needs of the POTW for NPDES permit compliance. EPA approval of local programs should not be required. All POTW NPDES permits should be enforced in the same manner as industrial NPDES permits, placing the responsibility for POTW discharges on the municipality.

EPA should retain a role in pretreatment by issuing technical guidance to assist POTWs in setting their own limits.

-- States should ensure that each POTW meets its NPDES permit and that water quality standards are met. Only after the state and the POTWs have failed to initiate action within a reasonable time after violation of the POTWs NPDES permit or water quality standards should EPA become involved.

-- POTWs should be allowed to impose pretreatment limits on conventional pollutants only after sufficient public notice and opportunity for public comment. User charges calculated as a proportionate share of a company's wastewater load on a POTWs should be part of the proposed pretreatment package issued by any POTWs.

-- Section 7 of S. 431 does not adequately address these issues. It does provide a procedure to apply for a permit modification to establish an alternative local pretreatment program. However, even this procedure appears to be lengthy, burdensome, and weighted in favor of rigidity rather than flexibility. It would leave EPA still in the business of managing pretreatment. We believe this should be in the hands of State and local authorities.

Water Quality Standards

We do not believe that designated uses should be frozen as of January 1, 1983, as is proposed by Section 6 of S.431. Such a proposal assumes that all classifications are proper now; this is not a correct assumption. The use of our nation's water is a

great economic asset for our country and is indispensable to creating jobs and producing the goods that provide higher standard of living. Therefore, our membership is greatly affected by national and state policies regarding water use. Water plays a vital role in manufacturing processes, although only a small percentage of the water used is actually consumed. Substantially more than 90 percent is returned to receiving bodies of water. The vast bulk of it is used only for cooling purposes and does not come in contact with the manufacturing process.

EPA's proposed revisions to existing water quality regulations appear to provide greater flexibility for maintaining water quality conditions consistent with practical physical limitations and economic development. Water quality decisions are best made by the states with full public participation in the decision-making process. Under present regulations, some streams are governed by water quality standards that are impossible of attainment. A greater role for the states would provide needed flexibility and recognition of local and regional realities. We are in favor of improving and maintaining stream quality conditions to the greatest extent consistent with economic and physical limitations. Thus, we believe that, once a use has been atained, it should be changed only under highly unusual circumstances, but the door should be kept open for changes when imperatively needed. It should be kept in mind that new manufacturing facilities will be using state of the art pollution abatement technology, and the stream quality will probably not be

significantly diminished by siting of modern facilities in instances where industrial use would be made possible.

If industry's options for installing new facilities are unduly limited by stringent water quality policies, there will be a tendency to prolong the life of older facilities. These older facilities, even if retrofitted, will probably discharge more pollutants into the total environment than new facilities, into which the most modern pollution abatement procedures can be designed. The Congress and EPA should be continually aware that overregulation in one environmental area can lead to an overall decrease in environmental quality by increasing or prolonging pollution elsewhere.

Bubble Concept

-- In order to make clear that the use of the bubble concept is authorized under the Clean Water Act, Section 301(e) should be amended to provide that effluent limitations are to be applied to each point source or group of point sources of discharge, provided that water quality is protected.

Best Available Technology Economically Achievable (BAT)

-- BAT limitations should be required only where there is a significant toxics problem. "Significant toxics problems" should be defined as those where BPT standards or limitations are not providing sufficient protection to the receiving waters and where further abatement would have a measurable effect on receiving waters.

Situations where a pollutant is present in the effluent solely as a result of its presence in intake waters should not be considered a significant toxics problem. The legislation should provide flexibility so that States and localities can administer reasonable programs.

-- BPT standards should not be elevated so as to equal BAT or require zero discharge.

-- BAT requirements for nonconventional pollutants should not be applied unless water quality demands it.

We endorse the provisions of S. 432 establishing industry by industry compliance deadlines replacing the present unrealistic blanket deadline date of July 1, 1984. We believe it is imperative that a bill be passed this year in order to grant relief from this unrealistic deadline.

Conclusion

The Congress has an opportunity in the course of reauthorizing the Clean Water Act to make a number of changes that would facilitate the achievement of better water quality in this country. The changes we have suggested would simplify and streamline the law, giving it greater flexibility and creating a true Federal-State partnership. We do not believe that a five-year reauthorization of the Act should contain only limited changes.

We thank you for your consideration of our views.

National Association
of Manufacturers

Resources and Technology Department
Energy
Environmental Affairs
Natural Resources
Innovation, Technology & Science Policy

June 6, 1983

The Honorable John H. Chafee
United States Senate
Chairman
Subcommittee on Environmental Pollution
Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Chafee:

Thank you for your letter of May 4, 1983, in which you submitted two questions from Senator Stafford, Chairman of the Senate Committee on Environment and Public Works. I received your letter on May 13 and have attempted to provide a quick response.

Senator Stafford's first question was on pretreatment with respect to toxic pollutants; their quantity, the number of chemicals and the number of sources. The question specifically centered on local controls of pretreatment programs and states established discharge limits.

The point of control in managing toxic chemicals from municipalities must be where the municipalities discharge their treated water and the point of sludge disposal. Pretreatment cannot be considered an end but rather a method of protecting and assisting POTW management in controlling discharges. Further, it cannot be assumed that federally established industrial pretreatment programs, as presently being developed, will eliminate toxic pollutants in municipal wastewater. These chemicals will continue to occur from products used by the public.

Attached is a comparison of the EPA, state, and POTW responsibilities under the present and the NAM proposed pretreatment concept. As you will note, the roles are the same except that EPA would establish guidelines to predict the amount of chemical treatment or pass-through for standard POTW treatment processes. There is also a change in POTW management. The POTW would establish pretreatment limits based on data from previous steps of the program. This job is not beyond the capabilities of the POTW management.

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In the proposed program, industrial discharge will be identified - as is presently being done. Toxic pollutants would be identified from surveys of the manufacturing plants - as is presently being done. Water influent and effluent of the POTW would be tested for the toxic chemicals that were previously identified to determine if permit limits are attainable - as is presently being done. If a toxic pollutant cannot be detected in the wastewater, then there is no need to regulate, control, or pretreat. If, however, further treatment is required for a chemical, then pretreatment requirements can be established through material balances, establishment of percent reductions, or establishment of ordinance limits in relation to the amount of material that must be removed. Sewer ordinance limits and pretreatment regulations have been managed by many cities for decades.

The advantage of this proposal is that pretreatment would be required only when the quality of the municipal discharge warrants treatment. The proposal is more directly related to the control of chemicals. Federally established pretreatment limits do not guarantee that discharges from POTWs will meet permit limits whereas the proposal has a direct relation between pretreatment needs and effluent quality.

The remaining issue is the establishment of NPDES limits for specific toxic pollutants for the POTWs. Obviously, if the chemical is not-detected in the discharge water by standard test methods then there is no need to establish limits. If limits are needed, they can be established at the same concentrations as industrial effluent quidelines. I would like to call your attention to the fact that chemicals in municipal collection systems originate only partly from regulated industries and many come from consumer use.

Senator Stafford's second question is on the bubble concept. Three factors must be present for the concept to work: enforceability, similar chemicals, and prevention of endangerment to receiving waters more than direct applications of permits. The concept will not work for all discharges but should be allowed for cost advantages in achieving legislative intent.

Discharge of mixed chemical streams can apply to the concept if permits are directed to a "controlling chemical." A controlling chemical is that chemical that has the highest concentration in relation to its discharge limit. Other chemicals in the discharge which are below the relative concentration offer less concern and need not be regulated. If the three principles outlined above are followed, the bubble concept can work.

On a separate issue, I wish to point out that during the 1960s and before, water pollution control was a scientific/engineering issue with local government management. Congress greatly increased the momentum during the 1970s with the driving force of legal responsibilities on a national basis. In the 1980s it is appropriate for a second transition. That transition is to professional government management on the state level while still retaining the federal legal requirements. The management shift would more effectively control our water resources because it would be in tune with local water conditions rather than uniform national standards.

Thank you for the opportunity to answer your further questions.

Sincerely,

Harold L. Jensen
Director
Warner-Lambert Company
Energy Conservation and
Environment Control

HJ/DWC/vgk

Attachment

INDUSTRIAL PRETREATMENT RESPONSIBILITIES

Present	NAM proposed
EPA - Industrial pretreatment standards.	EPA - Guidelines for predicting chemical treatment or passthrough for standard POTW treatment process.
POTW - Identify industrial discharges pretreatment is required.	POTW - Identify industrial discharges where pretreatment is required.
State/EPA - NPDES limits based on industries present and other factors.	State/EPA - NPDES limits based on industries present and other factors.
POTW - Enforcement pretreatment program.	POTW - Pretreatment requirements based on data from above.
State/EPA - Enforce POTW/NPDES.	State/EPA - Enforce POTW/NPDES.

Testimony Of

Anthony Z. Roisman

My name is Anthony Z. Roisman. I was formerly Chief of the Hazardous Waste Section in the Lands Division of the Department of Justice. I am now an attorney in private practice specializing in the use of the common law to redress wrongs done to private citizens where successful litigation will set an important precedent to protect the public interest. I appear here today on my own behalf as a concerned environmentalist.

For more than a decade the United States Congress, often led by this Committee, has expressed, through enactment of environmental legislation, a commitment to not only prevent further degradation of our natural environment but to reverse the terrible tide of environmental pollution that has threatened to smother the world in its own garbage. Whether this garbage came out of a smokestack, a pipe or a barrel; whether it assaulted our bodies, our water, our air, our land or any other of our natural resources; whether its origin was interstate or intrastate, private or governmental; in whichever manner or form environmental pollution has taken, Congress has declared: ENOUGH!

Section 101(a) of the Clean Water Act declares "the objective of this Act is to restore and maintain the chemical, physical and biological integrity of the Nation's waters." Similar statements of purpose and commitment introduce each of the major laws designed to restore and maintain our natural environment. This supervening purpose, more than any other, should form the basis for analysis and interpretation of the language of these statutes. When faced with a choice between allowing environmental degradation to continue or to abate it,

Congress has declared it shall be abated. Interpretations of statutory language and Congressional intent by the judicial system should be consistent with this goal.

In its decision in Milwaukee v. Illinois the Supreme Court was not true to these principles. Instead the Court construed every possible ambiguity in the statutory language against environmental protection and in favor of allowing what was admittedly damaging pollution to continue. The Court's crabbed interpretation of the Clean Water Act reflected very little understanding or concern for the Congressional goal of restoring and maintaining the quality of the Nation's waters.

Without rehashing that much-discussed decision, it can be quickly summarized as holding that when Congress enacted the Clean Water Act it intended to displace all federal common law remedies to redress water pollution problems at least when the problem is created by water pollution specifically authorized under federal statute. Surprisingly, this result is not reached by citing explicit statutory language or legislative history, but rather through the Court's own concept of what Congress should have intended had it been presented with the issue. The Court virtually concluded that because federal common law was created by the federal judiciary, it could be destroyed by the federal judiciary. This view ignores the real benefit of the federal common law.

Traditionally, common law remedies precede statutory laws. Often the common law, through the case by case development of legal principles, establishes the legal fabric from which the statutory law is cut. When common law principles are codified the legislature expresses the extent to which the common law is replaced by statutory law. For instance, in many areas common law concepts of laches have been replaced by legislatively enacted statutes of limitations. There is no question but that the indefinite laches period is being displaced by the definite statutory time limits.

This is not what happened with the enactment of the Clean Water Act. Federal common law concepts of public nuisance provided for abatement and damages for particular acts of pollution. The Clean Water Act established a national minimum standard of conduct without provision for any damages and without regard to individual cases. Inherent in such a national scheme is the real danger that regulation will fail to account for varying fact situations adequately. Regulators are always pressured by particular pollution sources to set standards based upon known and proven harms from pollution. To rely solely on known and proven harms will mean that standards will be too lax to cover all adverse situations. However, federal common law can help fill the gap between the known and proven harms and the as yet not fully understood or realized risks. It is the safety net which allows regulators to set standards of harm which approach

the lowest common denominator confident that should real harm arise in the future, federally developed common law concepts will apply to right the wrong and carry out the Congressional intent.

When the Supreme Court eliminated this safety net, it did so on the basis of the faulty assumptions that Congress had given the authority to the EPA to regulate all possible water pollution and that EPA would exercise that authority to leave no regulatory gaps. In fact, both assumptions were in error.

First, gaps in the Clean Water Act control of hazardous substances escaping from impoundments and landfills were so great that Congress in 1976 enacted the Resource Conservation and Recovery Act to address them specifically. Similarly, the entire area of hazards created by pollution spills -- covered in § 311 of the Clean Water Act -- was so full of gaps that in 1980 Congress passed the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Superfund) just to address that issue. Second, as recent events have so clearly disclosed, federal agencies even if given plenary authority to act will not necessarily exercise that authority. Thus, gaps both in promulgation and implementation have occurred and are inevitable in any scheme of federal regulation over a subject as diverse as environmental pollution.

This is not new wisdom. Congress has been aware that federal statutes and regulations are not in and of themselves sufficient to solve the pollution problem. In § 510 of the Clean Water Act Congress preserved all state rights to impose standards

by statute, regulation or common law more stringent (but not less stringent) than those imposed by the federal government. It is anomalous that Congress would, with respect to a matter of such national importance, allow individual states to impose more stringent pollution control than the EPA, but would deny federal courts the same option.

In addition, if federal common law does not exist and state common law does, it is quite possible that a corporation in one state complying with federal regulation could be subjected to markedly different pollution control depending on whether its pollution is interstate or intrastate. For instance, if a discharge from pipe A causes serious environmental harm within the state but a discharge of the identical pollutant from pipe B causes interstate harm the discharge from pipe B would arguably be immune from any additional constraints under state or federal common law. The need for the common law to fill the gap is just as great whether the pollution is inter- or intra-state.

If the expanded logic of the Milwaukee decision is allowed to stand, the result could be that every statute where Congress has attempted to implement a broad and thorough regulatory scheme will be deemed to displace federal common law. These statutes would arguably include the Resource Conservation and Recovery Act, the Clean Air Act, the Toxic Substances Control Act, the Atomic Energy Act, to name only a few. When I was with the Department of Justice we often found it of material benefit to

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add federal common law nuisance claims to our environmental litigation under these statutes. Given the significance of the common law as a mechanism to protect the public health and safety when all else fails, the result of wholesale displacement of common law remedies would be disastrous.

Where a federally permitted discharge nonetheless causes significant environmental harm there should be damages available to compensate those who have suffered. In this period of emphasis on "market place economics" it is particularly inappropriate to allow the risk of doing business to be shifted from the business creating the risk to innocent by-standers. Common law concepts of just compensation for damages caused by pollution forces external costs of pollution to be internalized to the business causing the pollution and provides economic incentives to that business to find a way to conduct its activities without causing environmental damage. Such an incentive is one of the best ways to get industry to devise on a case by case basis its own best technology to cope with a problem. Congress should act to preserve these common law principles.

There are several ways to restore the federal common law. One is to amend each environmental statute to explicitly preserve federal common law. This process would be long and tedious. A quicker way would be to enact a generic provision applicable to all environmental laws to the effect that nothing in any of the enumerated acts shall be construed as displacing any common law or other rights or remedies under other federal or state law

except to the extent the statute explicitly declares that such displacement is to occur. The provision should be retroactive to the date of enactment of the enumerated statute. The same provision should declare a Congressional purpose that federal courts develop and use common law principles to the fullest extent warranted by the ends of justice.

The Supreme Court decision in Milwaukee v. Illinois has placed a serious cloud on the right of citizens, states and the federal government to use the federal courts to redress the injuries caused by environmental pollution and to prevent further pollution. The Court has concluded that although Congress considers pollution to be a matter of prime national concern federal common law remedies are unavailable to those who are harmed by that pollution. Such a result is inconsistent with the strong Congressional intent to restore and maintain the natural environment and it should not be allowed to stand.

TESTIMONY OF GEORGE CLEMON FREEMAN, JR.

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

CLEAN WATER ACT AMENDMENTS INTENDED
TO CREATE A FEDERAL COMMON LAW

APRIL 6, 1983

I. INTRODUCTION

Mr. Chairman, Committee Members, Ladies and Gentlemen -- my name is George C. Freeman, Jr. I am a partner with the law firm of Hunton & Williams, with my offices both in Washington, D.C. and Richmond, Virginia. I am also a member of the D.C., Virginia and Alabama bars.

Hunton & Williams represents numerous clients in environmental and energy matters. For example, we represent the Utility Water Act Group (UWAG) in EPA rulemakings and appeals under the Clean Water Act. UWAG is an ad hoc group of 56 utility systems, the Edison Electric Institute and the National Rural Electric Cooperative Association. Our UWAG representation includes seeking judicial review of EPA regulations governing The National Pollutant Discharge Elimination System (NPDES) permit program. We also represent individual utility companies, oil companies, paper producers, pharmaceutical manufacturers and chemical manufacturers that

own and operate facilities that are subject to numerous Federal Clean Water Act requirements as well as similar Federal and State environmental requirements in other subject areas. Our firm has also been retained by the Edison Electric Institute (EEI), the trade association of the investor-owned segment of the electric utility industry, to represent it in connection with the current efforts to amend the Clean Water Act. As the senior lawyer in Hunton & Williams' energy and environmental law team, I have generally been in charge of the firm's efforts in these areas. I am presently a member of the Tort Law Reform Committee of the Section of Corporation, Banking and Business Law of the American Bar Association (the ABA). But I am testifying today, not as a spokesman for my firm or any of its clients or any professional association with which I am connected, but rather as a practicing lawyer and an interested citizen. The views I express are solely my own and they should not be attributed to my firm or any of its clients or the American Bar Association.

My opinions on the subject matter of this hearing are derived not only from my experience in representing clients in this field, but also from my now distant experience as a law clerk to Mr. Justice Black in the 1956 Term of the Supreme Court and my more recent experience as one of three members of the Superfund 301(e) Study Group designated by the President of the ABA. Our twelve member group, composed of three members designated by the presidents of four bar associations: the ABA,

the American Law Institute, the American Trial Lawyers Association and the National Association of Attorneys General, worked for over a year to produce the Report your Committee received this past September in compliance with the Comprehensive Environmental Response Compensation and Liability Act of 1980 [the Superfund Act].1/ This Committee of lawyers with widely differing perspectives was chaired by former New Jersey Attorney General James R. Zazzali. Professor Frank P. Grad of Columbia Law School served as our Reporter. As required by the Superfund Act, we examined the adequacy of existing Federal and State statutory and common law remedies in providing legal redress for harm to man and the environment and made a number of recommendations for improvement, some directed to Congress and some to the States.

During the latter stages of the Study Group's deliberations, the Chairman and Ranking Minority Member of this Committee wrote us a letter asking that we collectively examine the decisions in City of Milwaukee v. Illinois, 451 U.S. 304 (1981) and Middlesex County Sewerage Authority v. National Sea Clammers Association, 453 U.S. 1 (1981), and their implications for victim recovery.2/ When the Study Group received the

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1/ "Superfund Section 301(e) Study Group," Senate Comm. on Environment and Public Works, Serial No. 97-12, 97th Cong., 2d Sess., Injuries and Damages from Hazardous Wastes - Analysis and Improvement of Legal Remedies (Comm. Print 1982) (hereinafter Superfund § 301(e) Report).

2/ Attachment B.

letter, its analysis of the existing law had been virtually completed, so Chairman Zazzali simply noted in his response to you that this matter is covered in our Report at some length.3/

The Superfund Study Group was a group with members from academia, the bench and practicing lawyers experienced in counselling or trying cases for plaintiffs and defendants. As Professor Grad noted in his Reporter's introduction and acknowledgements section of the Report:

> The law which authorized the Group expressly and intentionally provided for a membership derived from different organizations, representing different commitments and interests, and unlikely to reach an easy consensus. This Report was not arrived at easily.4/

Consensus often was not achieved on matters of interpretation of existing law as well as on recommendations for improvement. For example, Judge Charles D. Breitel, the distinguished retired Chief Judge of the New York Court of Appeals, and I disagreed with the Report's analysis of "strict liability" under state common law doctrines.5/

Nevertheless, the subject matter of this hearing was one of the areas where all of us agreed both as to the state of existing law and the problematic character of any Congressional

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3/ Attachment C.

4/ Superfund § 301(e) Report, Part 1, pp. 6-7.

5/ See Superfund § 301(e) Report, Part 1, pp. 298-299 (Judge Breitel); p. 319, 337 n. 33 (Freeman).

attempt to change the Supreme Court's mind on the issues involved.6/

The Superfund Study Group's mission under the Superfund Act was "to determine the adequacy of existing common law and statutory remedies in providing legal redress for harm to man and the environment. . ."7/ The letter to us from Senators Stafford and Randolph expressed concern that the Milwaukee and Sea Clammers cases "pose a nascent threat to the already limited ability of injured parties to obtain adequate relief under law."8/ This concern appears to focus on the area of the remedies available to injured parties, the primary concern of the Sea Clammers case.

Sea Clammers held that no implied right of action for damages to injured parties exists under the Clean Water Act. It also held that no right of action for private plaintiffs exists under federal common law since the City of Milwaukee case decided that the Congress had made the Clean Water Act the exclusive federal remedy in that area of the law. Precisely, the Milwaukee case held that the State of Illinois in seeking

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6/ See Superfund § 301(e) Report, Part 1, pp. 85-90 (consensus view); 323-324, 342-343 nn. 42-47 (Freeman); Part 2, Appendices F and G (Background Memoranda by Columbia Legislative Drafting Research Fund); Attachments to this Statement [also found in rear of Superfund § 301(e) Report, Part 2, but inadvertently omitted from Part 2 Table of Contents by Senate Environment and Public Works Committee].

7/ CERCLA § 301(e)(1), 42 U.S.C. § 9651(e)(1).

8/ Attachment B.

to abate pollution by an out-of-state municipality in the federal courts was limited to the comprehensive permit issuance, review, and injunctive relief scheme set forth in the Clean Water Act. Milwaukee involved the rights of States as States to seek relief in federal court deriving from the nature of the federal system, not rights or remedies of injured parties generally.9/

In large measure, when this Subcommittee held hearings on these decisions last year the testimony centered on the Milwaukee case and remedies available to States. There was little attention directed to the present non-availability of a federal water pollution damages remedy for injured parties. Instead, with the exception of the questions by Senator Stafford and Senator Gorton, it regarded the wish of State attorneys general and other government prosecutors for Congress to provide access to the federal courts to States which had ignored the comprehensive and detailed process in the Clean Water Act through which one State may involve itself in the permit issuance, administrative and judicial review processes of another State.10/

9/ See, City of Milwaukee v. Illinois, 451 U.S. 304, 309-310 (1981); Comment, Requiem for a Federal Common Law Of Nuisance, 11 Envir. L. Rep. 10191 (1981); Attachments A, D.

10/ See Clean Water Act Amendments of 1982: Hearings on S. 777 and S. 2652 Before the Subcomm. on Environmental Pollution of the Senate Comm. on Environment and Public Works, 97th Cong., 2d Sess. 563-581 (1982).

Therefore, I will begin my presentation with a discussion of the absence of a federal damages remedy for violations of the Clean Water Act, the area of more central concern to the Superfund Study Group. After discussing that topic, I shall make a few remarks about the Milwaukee case. But before I begin, you should be aware that I do not think the two areas are necessarily connected.

Senator Stafford in 1981 apparently sought to reverse both the Milwaukee and Sea Clammers holdings by amending a savings clause in the Clean Water Act. The intent was to "preserve" the "federal common law of nuisance" which existed before passage of the 1972 amendments to that Act.11/

But in my view, this amendment probably would not have had its intended effect to change the result which the Supreme Court reached in either the Milwaukee or Sea Clammers cases. Although lawyers may differ with my view with respect to the Milwaukee case, I believe that few would quibble with respect to Sea Clammers. The Supreme Court has never held that a private right of action for damages exists in cases of violations of a Federal environmental regulatory program such as the Clean Water Act. After Milwaukee I, but before Milwaukee II, when the so-called "federal common law of nuisance" was thought to be available to States because of "the structure of the federal system itself,"12/ only the most

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11/ 127 Cong. Rec. S. 15640-41 (daily ed. Dec. 16, 1981); 127 Cong. Rec. S. 12246 (daily ed. Oct. 27, 1981) (amendment to S. 1716, 97th Cong. 1st Sess.).

12/ Hearings, supra note 10, at 653 (prepared statement of A. Dan Tarlock).

adventurous plaintiff could have thought that a similar "federal common law of nuisance" was available to private parties, providing access to the federal courts for what otherwise would be a State tort suit. No member of the Superfund Group: environmentalist, plaintiff's lawyer, or academician, disagreed with this view during its deliberations. Indeed, I believe most of us shared the view of our reporter, Professor Frank Grad, that had the Court reached this issue in Sea Clammers that particular Court would have held that the federal common law of nuisance has never existed for private plaintiffs.13/

II. THE SUPERFUND STUDY GROUP VIEW ON PRIVATE "FEDERAL COMMON LAW" RIGHTS

The Superfund Study Group also unanimously agreed that no federal common law remedy exists for violation of the provisions of any environmental statute:

> Common law remedies for personal injury probably are restricted to state law, in light of the Supreme Court's opinions in Middlesex County Sewerage Authority v. National Sea Clammers Association and Milwaukee v. Illinois and Michigan which held that comprehensive water pollution control legislation preempted the federal common law of nuisance.14/

It is clear that this statement is just as true for alleged air pollution-related injuries15/ and alleged hazardous waste

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13/ See Grad, A Treatise on Environmental Law § 4A.05.

14/ Superfund § 301(e) Report, Part 1, p. 87.

15/ See New England Legal Foundation v. Costle, 666 F.2d 30 (2d Cir. 1981); Connecticut v. Long Island Lighting Co., 535

(footnote continued)

related injuries16/ as it is in the Water Act context. In Milwaukee and Sea Clammers, the Supreme Court clearly instructed the lower federal courts not to create judicially additional federal remedies for environmental injuries over and above those set forth expressly in the federal statutes. The Supreme Court has often stated the applicable rule of interpreting federal statutes in many contexts.

> [I]t is an elemental canon of statutory construction that where a statute expressly provides a particular remedy or remedies, a court must be chary of reading others into it.17/

Since all the environmental statutes provide both States and citizens some direct remedies (e.g. suits to enforce NPDES permit requirements and judicial review of NPDES permit issuance) and indirect remedies (e.g. emergency provisions to restrain any act which may cause or contribute to a threat to

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(footnote continued)

F.Supp. 546 (E.D.N.Y. 1981); United States v. Kin-Buc, Inc., 532 F. Supp. 699 (D.N.J. 1981).

16/ See United States v. Wastes Industries, 18 ERC 1521, 1533-1534 (E.D.N.C. 1983); City of Philadelphia v. Stepan Chemical Co., 544 F. Supp. 1135 (E.D. Pa. 1982); United States v. Price, 523 F. Supp. 1055, 1069 (D.N.J. 1981), aff'd 688 F.2d 204 (3rd Cir. 1982); see also United States v. Diamond Shamrock Corp.; 12 ELR 20891 (N.D. Ohio 1981)(federal common law of nuisance to abate hazardous waste discharges is precluded by failure to allege interstate effects of pollution).

17/ Middlesex County Sewerage Authority v. National Sea Clammers Association, 453 U.S. 1, 14-15 (1981), quoting Transamerica Mortgage Advisors, Inc. v. Lewis, 444 U.S. 11, 19 (1979).

public health or the environment), the canon as applied means that the federal courts are not to infer the existence of any additional federal remedy.

In the context of the Superfund Act itself, for example, I do not believe that the Supreme Court would uphold a lower federal court if it were to infer that a federal private cause of action exists notwithstanding the absence of an express third party liability statutory provision. As Senator Stafford stated at the time he introduced the "consensus" Superfund bill on the floor of the Senate, a key component of the compromise permitting passage was that the negotiators of the compromise "eliminated the Federal cause of action."18/ Were a court to hold that any federal private cause of action existed for violations of the liability provisions of the Act, the deletion of the Federal cause of action to which Senator Stafford referred would have in fact been ineffective and the "compromise" meaningless.

III. A PROPOSED CLARIFICATION OF EXISTING LAW ON THE ISSUE

The basic policy question posed for this hearing was put simply by Justice Stevens in his dissent in the Sea

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18/ 126 Cong. Rec. S. 14967 (daily ed. Nov. 24, 1980). Liability under the Superfund Act CERCLA § 107, 42 U.S.C. § 9607, is to governmental entities, just as in CWA § 311, 33 U.S.C. § 1321. See CERCLA § 101 (32), 42 U.S.C. § 9601 (32). And see the separate views of Senators Domenici, Bentsen and Baker, as to these so-called "third party" provisions in the original Senate Bill. S. Rep. No. 96-848, 96th Cong., 2d Sess. 117 (1980).

Clammers case: "When should a person injured by a violation of federal law be allowed to recover his damages in a federal court?"19/ The Supreme Court's answer to that question is that a damage remedy exists only where it has been expressly created in a statutory cause of action. In his dissent, Justice Stevens gave one possible reason for the Majority's answer to his question:

> In recent years . . . a Court that is properly concerned about the burdens imposed upon the Federal Judiciary, the quality of the work product of Congress, and the sheer bulk of new federal legislation, has been more and more reluctant to open the courthouse door to the injured citizen.20/

Justice Powell emphasized this point recently in another Supreme Court case:

> The escalating recourse to damage suits has placed a severe and growing burden on lower federal courts. My research -- accomplished mostly through a computer search of cases in the federal reporters -- indicates that in the past decade there have been at least 243 reported circuit court opinions and 515 district court opinions dealing with the existence of implied causes of action under various federal statutes. It is time that federal courts discontinued the speculative creation of damages liability where the legislature has chosen to remain silent.21/

It would be strange indeed if Congress were to try to

19/ Sea Clammers, at 22 (Stevens, J., dissenting).

20/ Id., at 24-25.

21/ Merrill Lynch Pierce Fenner & Smith, Inc. v. Curran, __ U.S. ____, 72 L.Ed.2d 182, 220 n. 17 (Powell, J.,dissenting).

compel the United States Supreme Court to create an "implied" remedy which the Congress itself is unable to articulate expressly. Congress is not a court. Congress, a continent and three centuries removed, cannot act as if it were the House of Lords, treat the Supreme Court as an inferior Court of Appeal and order it to revise its ruling on the existence and extent of federal common law. This would violate the very essence of separation of legislative and judicial powers between the two branches of government. A Congressional attempt to create or revise a "common law" damage remedy would be an admission of the failure of the legislative process. If there is legal force in the doctrine of standardless delegation of legislative power in the twentieth century, surely it must be that Congress cannot say to the federal Courts, create judicially an environmental pollution cause of action which we have been unable to articulate expressly in a statute.22/

This is not to say, of course, that Congress can not constitutionally create jurisdiction in the federal district courts to resolve interstate pollution disputes without articulating what substantive law applies. Diversity

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22/ See Comment, The Supreme Court Closes the Door on Implied Causes of Action Under Environmental Statutes: Middlesex County Sewerage Authority v. National Sea Clammers Association, 1 Va. J.Na.Resources L. 304, 326-327 (1981); Casenote, Middlesex County Sewerage Authority v. National Sea Clammers Association: Implied Private Rights of Action for Damages Under the Federal Water Pollution Control Act Amendments of 1972, 12 Envir.L. 197, 223-224 (1981); cf S.Rep. No. 97-284, 97th Cong., 1st Sess. 164-165 (1981) (regulatory reform act).

jurisdiction in the federal district courts already is available to citizens of different States if a plaintiff's damage is $10,000 or more. But Federal judges are obligated to apply State law, including State common law, in such nuisance suits.23/ The federal court will apply the conflict of laws rules of the State in which it is located to decide which State's law is applicable.24/ In most states the State law applied is of the place of injury so that a party injured in State A by a polluter's acts in State B will have the nuisance law of State A applied in his case.25/ Thus, State, not federal, law governs the substantive right to damages in cases in federal court under diversity jurisdiction.26/ It is likely

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23/ Conversely, it is possible that substantive federal law must always apply in a few narrowly defined situations in which the nature of the parties and controversy makes application of any State's law inappropriate. Disputes among States, and among States and Indian tribes, may be resolved only by resort to Federal substantive law. And absent Congressional legislation, the Supreme Court may have to fashion that law in a process analogous to the evolution of common law. The process, however, is tedious and may take decades before final decisions can be reached. In any event, where Congress has carefully defined the circumstances in which a State has access to the federal courts, as with the Clean Water Act, the federal courts only have jurisdiction in the defined circumstances. In many situations, a State court is the court of competent jurisdiction available to adjudicate a controversy under federal law. See Testa v. Katt, 330 U.S. 386, 394 (1947).

24/ Klaxon Co. v. Stentor Electric Mfg. Co., 313 U.S. 487 (1941); Day & Zimmerman, Inc. v. Challoner, 423 U.S. 3 (1975).

25/ Restatement of Conflicts § 377, Illustrations 1 and 4 (1934); Restatement of Conflicts (Second), § 146, §§ 156-163.

26/ Erie R.R. Co. v. Tompkins, 304 U.S. 68 (1937).

that the current Supreme Court, if Congress could Constitutionally instruct it to create a "common law of nuisance"27/ would probably apply State nuisance law using Erie principles and traditional choice of law rules unless Congress specified that it look to another source of the "common law."

This results from the fundamental principle that the Founding Fathers denied the Federal Government the parens patriae powers of the British Crown, carefully safeguarding that residuum of sovereignty to the States. The traditional common law of tort and nuisance was thus retained by the States as incident to their police powers. As Professor Laurence Tribe has stated the principle in his treatise on constitutional law:

> Unlike their state and English counterparts, federal courts are not essentially common law tribunals. In the absence of specific congressional authorization, they lack the power to resort to a body of customary law, collected and defined in prior court decisions in order to resolve the cases before them.28/

Justice Brandeis noted in the landmark case of Erie Railroad Co. v. Tompkins, "Congress has no power to declare substantive rules of common law whether they be local in nature or

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27/ As noted earlier, I believe that the attempt might be held unconstitutional and contrary to the Constitution's separation of power principle or "standardless delegation" doctrine. See text accompanying note 22 supra.

28/ Tribe, American Constitutional Law § 3-31.

'general,' be they commercial law or part of the law of torts."29/ If Congress wishes to create a federal private right of action for damages, it must do so expressly in a statute.

Let me emphasize that neither the Superfund 301(e) Study Group nor I personally interpret currently existing federal law as in any way preempting or precluding the award of damages for violation of an NPDES permit or any provision of the Clean Water Act under State statutory or common law.

The only remedies set forth in the Clean Water Act are equitable in nature, for example injunctive relief to enforce the terms of a permit or to restrain a polluter in noncompliance with the Act's provision. Furthermore, these are generally the only remedies available to injured parties under any federal law, as the Supreme Court held in Sea Clammers. If somehow the Clean Water Act were to be construed to preclude the award of compensatory damages to those injured by violations of the Act under State statutory and common law, an injured party might have no way to obtain compensation for his injuries at all. I do not believe that Congress intended any such result. Nor do I believe that the Supreme Court opinions in Milwaukee or Sea Clammers compel such a result. Nevertheless, I realize that Senator Stafford previously has expressed some concern in this regard, and others may share these concerns.30/

29/ 304 U.S. 68, 78 (1937).

30/ E.g. 127 Cong. Rec. S. 15640-41 (daily ed. Dec. 16, 1981); "Stafford to Press for CWA Change Restoring Common Law Rights in Lawsuits," Inside EPA 14 (Jan. 15, 1982).

Therefore it seems to me that to resolve these doubts the addition of a savings clause to the Water Act clarifying Congress' intent to preserve compensatory damages under State law for injuries caused by violations of the provisions of the Clean Water Act would be appropriate. But, if Congress is to legislate in this area, it should also make clear that the award of exemplary or punitive damages under State law is not appropriate in the context of the Clean Water Act's comprehensive regulatory scheme. The civil penalties already available under the Act, which may also be sought by private parties through citizen suits, and the Act's criminal provisions are adequate to punish deliberate or grossly negligent polluters. Punitive damage awards under state law in addition to these statutory civil and criminal penalties provided for under federal law would constitute multiple punishment and be unfair to defendants.31/ Allowing punitive damages under State law in this context could also be unfair to some persons injured by the Clean Water Act violation. This could occur where the first plaintiff to sue and obtain both cmpensatory and punitive damages collects all the assets available so that nothing is left to compensate victims who get to the courthouse later in the day.

31/ See Superfund § 301(e) Report, part 1, pp. 322-323. An alternative would be repeal of most of the criminal sanctions now in the present law. Cf. Report on Proposed Federal Criminal Code, A Report by Ad Hoc Committee on Federal Criminal Code, 34 Bus. Law. 725 (1979).

It would also make sense to clarify in any such state common law "savings clause" amendment that persons who have not complied with all the terms of an NPDES permit may not necessarily fail to do so because of willfulness or negligence. Congress recognized this once already when it provided special penalties for negligent violators of the Act, which do not apply to non-negligent violators.32/ Sometimes unavoidable accidents happen, and sometimes a violation of a permit may be unforeseeable.

I have included an amendment along these lines with a short description of its purpose as Attachment F to this testimony. This proposed amendment would not affect the jurisdiction of the federal courts, however, and thus addresses a main underlying policy consideration for the U.S. Supreme Court, as I have described above. Where parties are limited to redress in the State courts today (e.g. where there is no diversity jurisdiction) they would be so limited under this amendment. The federal courts would not be overburdened.

IV. FURTHER CONSIDERATION OF POLLUTION COMPENSATION

Other than this clarifying amendment I have proposed, I do not believe that either the Superfund § 301(e) Study Group or I would recommend a federal "common law" approach to pollution compensation. This is not to say, however, that I

32/ CWA § 309(c), 33 U.S.C. § 1319(c).

believe that State legal remedies for pollution victims to be completely adequate in all 50 States. The Study Group considered but declined to recommend either a federal statutory cause of action or a federal common law approach to hazardous waste site compensation.33/ The Group instead opted for a limited social insurance mechanism through which limited relief might be sought.34/

Public dissatisfaction with current legal mechanisms for compensating those injured by pollution-related diseases continues to grow, generally accelerated by developments regarding asbestos litigation. The Asbestos Compensation Coalition's plan to piggyback "enhanced recovery" into existing state workmen's compensation awards35/ and the federal products liability legislation to simplify the tort litigation process through the supplanting of selected state tort liability rules with a single uniform national law36/ merit serious attention as well as the Superfund § 301(e) recommendations. State laws and proposals in the area such as the 1981 California administrative compensation plan for victims of "orphan" waste sites37/ and the North Carolina Governor's Waste Management

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33/ See Superfund § 301(e) Report, Part 1, p. 292 (Anderson), p. 306 (Freeman).

34/ Id. pp. 193-283.

35/ Occupational Disease Compensation Improvement Act (1982).

36/ See S. 2631, 97th Cong., 2d Sess. (1982).

37/ Cal. Health & Safety Code §§ 25300-25611 (1981).

Board's "strict liability" plan for assuring compensation at hazardous waste facilities38/ also are worthy of investigation.

It would be unfortunate if Congress were to avoid analyzing the larger compensation problem in detail by trying to delegate responsibility for legislating an adequate solution to the federal courts piecemeal, creating an ad hoc federal common law under diverse federal environmental laws.

V. THE MILWAUKEE ISSUE - A DUPLICATIVE PROCESS FOR REVIEW OF NPDES PERMITS?

I indicated earlier that I would make several additional observations on the Milwaukee decision, which held that a State's right of access to the federal courts is today structured exclusively by statutory provisions rather than through some "common law" incident to the structure of the federal system. For what little that it may be worth, I believe the case was correctly decided and in the fundamental principles of federalism and judicial restraint which underlie it. For those reasons, I do not believe that there is any sound reason to try to reverse that decision legislatively. I do not think that there are apparent gaps in the Clean Water Act's comprehensive scheme for issuance, review and challenge of NPDES permits and for injunctive relief, which indicate any

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38/ Report and Recommendations on Liability Issues in the Area of Waste Management Including a Report on the Desirability of Establishing by Statute a Standard of Strict Liability (Jan. 1983).

need for a duplicative "federal common law" scheme to grant relief to States outside the system Congress has already created.

In the factual context of the Milwaukee case, the plaintiff State of Illinois chose not to intervene in the permit issuance process in Wisconsin, as was its right, under the Clean Water Act's system.39/ Where EPA issues an NPDES permit under that Act, a "downstream" State may insist that effluent limitations in an NPDES permit issued for a discharge in another "upstream" State assure compliance with state water quality standards of the downstream State.40/ In our federal system, it is appropriate to assume that the downstream State will have done an adequate job in setting its own water quality standards to protect its own citizens. Private parties also can enforce this certification provision through a citizen suit.41/ Where States have taken over the implementation of the NPDES permit program, private citizens as well as a State

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39/ See City of Milwaukee v. Illinois, 451 U.S. 304, 326 (1981); CWA § 401(a)(2); § 402(b)(3); 33 U.S.C. § 1341(a)(2), § 1342(b)(3); see also 40 C.F.R. §§ 124.10-124.13, 124.17 (1982) (regulations governing notice and comment, rights to a hearing, requirement to raise "all reasonably ascertainable" issues and arguments in the proceeding, and requirement that permit agency respond to comments).

40/ CWA § 401(a)(2), 33 U.S.C. § 1341(a)(2); see Montgomery Environmental Coalition v. Costle, 646 F.2d 568, 594 n. 21 (D.C. Cir. 1980).

41/ CWA §§ 505(a), (f), (5), (g); 33 U.S.C. §§ 1365(a), (f)(5), (g).

may object in an EPA administrative review of State permit approval parties also can enforce this certification provision through a citizen suit 42/ where the water quality standards of another State are violated by the permit's terms. 43/ After a permit is issued, States and citizens alike can sue to enforce the limitations in the permit. 44/ NPDES permits must be renewed every five years, which again triggers the notice, comment, rights to a hearing and review features of the original permit process. 45/ So if a downstream State or a water user in the downstream State neglected to intervene in the initial permitting proceeding, they can do so in the future when the permit comes up for renewal. EPA also requires that permits contain a condition that they may be reopened during the permit term where there is a change of condition. 46/ Administrative decisions made with respect to reopening a permit proceeding are subject to judicial review. 47/ There are

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42/ CWA §§ 505(a), (f), (5), (g); 33 U.S.C. §§ 1365 (a), (f), (5), (g).

43/ CWA § 402(d)(2); 33 U.S.C. § 1342(d)(2). While the Act is not explicit that the state issued permit for an upstream discharge must assure compliance with state water quality standards in a downstream state, it would be anomalous for EPA to fail to veto a permit which authorized a discharge which EPA could not have permitted had it retained permit issuance authority.

44/ CWA § 505; 33 U.S.C. § 1365.

45/ 40 C.F.R. § 122.9(a).

46/ See CWA § 402(b)(1)(C)(i)-(iii), 33 U.S.C. § 1342(b)(1)(C)(i)-(iii); 40 C.F.R. §§ 122.9(a), 122.15, 123.7.

47/ CWA § 509(b), 33 U.S.C. § 1369(b).

emergency provisions in the Act, not limited on their face to point source discharges, through which EPA can bring suit to seek injunctive relief "notwithstanding any other provision of [the] Act."48/

The Clean Water Act includes adequate controls to prevent harmful discharges of pollutants and contains adequate means to enforce the imposition of these controls in its NPDES system. States have many places where the regulatory scheme envisions that they may intervene in EPA's or another State's permit process. The Act requires that an affected State have notice of these relevant proceedings at EPA or in another State before they occur. In contrast to the compensation or damages area, where some clarification that Congress has not precluded the award of damages under state law where there is a violation of the Clean Water Act may be helpful, the Clean Water Act scheme for injunctive relief through the federal process is wholly adequate. It would be anomalous for a State to insist that the federal courts be given "common law" powers to deal with situations it could have averted in its own water quality standards and failed to do so. Similarly, private citizens in the downstream State have the opportunity to protect their riparian interests in State proceedings to set or modify such standards.

48/ CWA § 504, 33 U.S.C. § 1364.

Thus where a downstream State or a citizen of a downstream State chooses to ignore the comprehensive scheme by which it may participate in the upstream State's administrative proceedings for issuance of an NPDES permit and its subsequent judicial review, it should not be able to second-guess that process by subsequently asserting a "common law" State right in the federal courts.

Attempts to amend the Act to provide a federal forum for collateral attacks on state water quality standards or NPDES permits would undermine the stability of the Act and the process that has been achieved to date under it to clean up the nation's waters. Indeed, it would be a gigantic step backward to the chaos that existed in this whole area of the law prior to the 1972 enactment of the Clean Water Act. The emphasis would shift back to case by case litigation focusing on water quality considerations and away from the basic emphasis of the current Act on technology-based limitations to assure meaningful national uniformity in order to provide industry with the predictability needed for long range planning and to avoid unfair competition among the states through substantially differing effluent limitation requirements.

Of all the environmental acts of the 1970's, the Clean Water Act has probably worked better and achieved the most benefits with the least costs. These cost "savings" have not only been obtained from intelligent standard setting by EPA, but also from reduced "transactional" or "friction" costs. The

prinicipal benefits of wise administrative efforts has been to substantially reduce appeals and litigation, with all of their attendant direct and indirect costs. Congress should think long and hard before it creates new incentives to shift the primary focus of our pollution control efforts away from the administrative process and back into the courts.

If Congress legislates in this area to clear up the doubts as to the continuing availability of state law damages where there are violations of the Clean Water Act, I suggest that at the same time it reaffirm that the Act provides the exclusive remedy for those who seek equitable relief for discharges regulated under the Act. An NPDES permit should be an absolute defense to any court action, whether brought by a State or private party, with respect to any request for prospective or injunctive relief.49/ Furthermore, where a State has been granted NPDES permit issuance authority under the Clean Water Act, access to the federal courts is limited to those circumstances in which EPA and the State disagree regarding permit terms.50/ Any administrative regulatory

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49/ Mabray v. Velsicol Chemical Corp., 480 F.Supp. 1240 (W.D. Tenn. 1979) ("If Velsicol is able to prove the allegations that it discharged the instant chemicals pursuant to a valid NPDES permit under the FWPCA, it may well have an absolute defense to plaintiff's tort claims."); but see Urie v. Franconia, 218 A.2d 360, 362 (N.H. 1966) (compliance with statutory standard does not bar liability for water pollution nuisance).

50/ See e.g., Wisconsin v. Metropolitan Council, 12 ELR 20617 (D. Minn. Apr. 23, 1982).

system needs finality, and the Act should provide the exclusive method through which parties can challenge the right to discharge pollutants in an NPDES permit.

In contrast, allowing damage suits for violations of NPDES permits to proceed under substantive State law in the State courts (and in federal courts where diversity jurisdiction exists), as I recommended above, is not of broadening the right of appeal from issuance of NPDES permits. The Superfund Study Group recommended that review of compensation awards in its hazardous waste site victim compensation plan follow the NPDES judicial review model generally limiting appeal of compensation awards to State courts.51/ I concur fully with this recommendation.

The Act provides adequate equitable remedies in cases where a permit or a provision of the Act is violated. The desirability of procedural uniformity recommends making the Act's enforcement provisions the exclusive equitable remedy in all the States.

VI. CONCLUSIONS

The principal issue of concern in this hearing is pollution compensation. This area is complex and raises many legal issues I have not discussed today. Attempting to address this problem by authorizing the federal courts to legislate a national law of tort or nuisance which the Congress finds

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51/ Superfund § 301(e) Report, Part 1, p. 252.

itself unable to articulate is not a proper way to address that problem. A secondary issue is the desirability of giving a State, aware of another State's NPDES proceedings but choosing not to participate in them, a right to second-guess the outcome of that proceeding by asserting a "federal common law" right of access to federal court completely outside the judicial review scheme in the Act. In my view Congress should not create this duplicative method of review. Nor should it do so for private plaintiffs who could have but did not vindicate their water rights in either the setting of their own State's water quality standards or the enforcement of those standards through the NPDES permit process.

Because some Senators fear that the Milwaukee and Sea Clammers cases somehow preclude the award of compensatory damages associated with violations of NPDES permits under State statutory and common law, I have suggested a possible clarifying amendment to remove any doubts. Its enactment would help to eliminate confusion and clarify the relationship between State court actions and enforcement actions under the Clean Water Act. Finally, if legislation moves forward in this area it should also explicitly preclude the award of punitive damages under State law since they are duplicative, and potentially conflicting, with the civil and criminal penalties provided in the Clean Water Act.

ATTACHMENTS TO TESTIMONY OF
GEORGE CLEMON FREEMAN, JR.

A. Letter from George C. Freeman, Jr., to Frank P. Grad, Reporter - Superfund § 301(e) Study Group, dated December 16, 1981 "Comments on your December 1 Memorandum on Implied Rights of Action and Negligence Per Se."

B. Letter from Robert T. Stafford, Chairman and Jennings Randolph, Ranking Minority Member, to Mr. James R. Zazzali, Chairman - Superfund § 301(e) Study Group, dated April 29, 1982.

C. Letter from James R. Zazzali, Chairman - Superfund, § 301(e) Study Group to Robert T. Stafford and Jennings Randolph, Senate Environment and Public Works Committee, dated June 25, 1982.

D. Letter from George C. Freeman, Jr., to Superfund § 301(e) Study Group, dated May 17, 1982 with attached memorandum dated, May 14, 1982, from Alfred R. Light to George C. Freeman, Jr., - "Superfund § 301(e) Study Group - Response to Senate Environment and Public Works Inquiry to Superfund § 301(e) Study Group."

E. Superfund § 301(e) Report, Part 2, Appendix F - "Private Remedies for Violations of Anti-Pollution Statutes: Implied Right of Action and Negligence per se." August 1982.

F. Possible Amendment Allowing Damage Suits for Violation of NPDES Permits.

Attachment A

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FILE NO.

DIRECT DIAL NO. 804 788-

December 16, 1981

Comments on Your December 1 Memorandum on Implied Right of Action and Negligence Per Se

Dear Frank:

I have been able to spend some time this weekend reviewing your memorandum of December 1 on "Private Remedies for Violations of Anti-Pollution Statutes: Implied Right of Action and Negligence Per Se." I thought it might be helpful to give you my comments in writing for the San Diego meeting.

1. I believe the paper would be easier to understand if you treated State law all together at one place and then dealt with federal law separately and all together at another.

2. As to federal law, I see a sharp distinction between (1) the line of cases going back to Texas & Pacific Ry. Co., which deal with a special question of statutory construction (e.g. California v. Sierra Club, __ U.S. __, 68 L.Ed. 2d 101 (1981) (holding implied right of action under Rivers and Harbors Act to be unavailable)) and the line of cases discussing the so-called "federal common law" of tort and nuisance (the short and unhappy life of Illinois v. City of

Milwaukee (Milwaukee I), 406 U.S. 91 (1972)). Both lines involve court scrutiny of particular federal statutes but for entirely different purposes. In the first line the search is for evidence of a Congressional intent to create a private cause of action, while in the latter the search is for evidence of intent to preempt (and thus to substitute more precise statutory remedies for other more nebulous common law remedies, if prior existence of the latter is assumed -- a very dubious assumption). The criteria that the Court has used in these separate efforts are different.

3. I have had occasion recently to zero in on City of Milwaukee v. Illinois (Milwaukee II), __ U.S. __, 68 L.Ed.2d 114 (1981), and Middlesex County Sewerage Authority v. National Sea Clammers (National Sea Clammers), __ U.S. __, 69 L.Ed.2d 435 (1981). The context was analyzing the problems presented by a proposed "technical" amendment adding a new subsection (e) to Section 511 of the Clean Water Act, added on the floor of the Senate in the passage of S. 1716. (Subsequently the amendment was not accepted by the conferees and so did not become law.) I thought it might be helpful to share the concerns I had with that proposed amendment since they are relevant to the matters we are considering.

The Supreme Court's Milwaukee II decision definitively resolved that at least since the passage of the 1972 amendments to the Federal Water Pollution Control Act, no federal common law exists with regard to tort or nuisance claims for "hazardous" and other types of water pollution. The National Sea Clammers opinion therefore held that it was moot "whether the federal common law of nuisance could ever be the basis for a suit for damages by a private party." 69 L.Ed.2d at 435, n. 17. See also Comment, Requiem for the Federal Common Law of Nuisance, 11 Envir. L. Rep. 10,191 (1981). Furthermore, I agree with the conclusion on page 12 of your memorandum that the present Court probably would answer the question of whether the federal common law of nuisance could ever be the basis of a suit for damages by a private party in the negative. Thus to the extent that anything remains of "the federal common law" in the environmental pollution context, it remains solely for the benefit of States in interstate pollution in areas where Congress has not provided the states alternative statutory remedies. But the Clean Air Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act and the Safe Drinking Water Act contain statutory remedies essentially equivalent to those found in the Clean Water Act. So even in the residual area where a State is the plaintiff, I doubt if there is anything left of federal common law relevant to our study.

For these reasons, our Superfund Section 301(e) Study has proceeded properly to date by concentrating on existent State statutory and State common law in this field. For purposes of our study it is irrelevant whether, as an academic matter: (1) federal common law existed with regard to hazardous water borne wastes prior to 1972 or wastes regulated by these other federal acts prior to their enactment and (2) whether federal common law, if existent prior to those dates, ever provided private parties, as distinguished from States (or their subdivisions), rights in tort or nuisance. Revival of those moot issues at this time would have substantially complicated and prolonged our Study.

In order to comprehend the statutory construction and Constitutional problems that would have been created if the proposed revision to Section 511 of the Clean Water Act or equivalent legislation had been adopted, we need to understand what was, and what was not, decided in the two Supreme Court decisions which the "technical" amendment in S. 1716 sought to reverse.

The first of these cases, City of Milwaukee v. Illinois (Milwaukee II), supra, has a long history. It originated with a suit instituted by Milwaukee in the Supreme Court seeking to invoke the original jurisdiction of the Supreme Court in disputes among States. The Supreme Court in Illinois v. City

of Milwaukee (Milwaukee I), 406 U.S. 91 (1972), declined to exercise that jurisdiction. The Court's reasoning in Milwaukee I was summarized later in Milwaukee II as follows:

> We declined to exercise original jurisdiction because the dispute was not between two States and Illinois had available an action in federal district court. The Court reasoned that federal law applied to the dispute, one between a sovereign State and political subdivisions of another State concerning pollution of interstate waters, but that the various laws which Congress had enacted "touching interstate waters" were "not necessarily the only federal remedies available." Id. [406 U.S.], at 101, 103. Illinois could appeal to federal common law to abate a public nuisance in interstate or navigable waters. The Court recognized, however, that:
>
> > It may happen that new federal laws and new federal regulations may in time pre-empt the field of federal common law of nuisance. But until that time comes to pass, federal courts will be empowered to appraise the equities of the suits alleging creation of a public nuisance by water pollution." Id., at 107.

68 L.Ed.2d at 121-122.

After Milwaukee I, Illinois on May 19, 1972, filed suit against Milwaukee in the U.S. District Court for the Northern District of Illinois seeking abatement under federal common law of a public nuisance allegedly created by Milwaukee's discharges into interstate or navigable waters. Five months later, Congress amended the Federal Water Pollution Control Act to impose substantial new federal controls on the discharge of pollutants. The district court litigation was suspended while the issuance of permits under the amended act proceeded. Subsequently, however,:

> [T]he District Court rendered a decision finding that respondents had proved the existence of a nuisance under federal common law, both in the discharge of inadequately treated sewage from petitioners' plants and in the discharge of untreated sewage from sewer overflows. The Court ordered petitioners to eliminate all overflows and to achieve specified effluent limitations on treated sewage. . . . A judgment order entered on November 16 specified a construction timetable for the completion of detention facilities to eliminate overflows. Separated sewer overflows are to be completely eliminated by 1986; combined sewer overflows by 1989. The detention facilities to be constructed must be large enough to permit full treatment of water from any storm up to the largest storm on record for the Milwaukee area. . . . Both the aspects of the decision concerning overflows and concerning effluent limitations, with the exception of the effluent limitation for phosphorus, went considerably beyond the terms of petitioners' previously issued permits and the enforcement order of the state court.
>
> On appeal, the Court of Appeals for the Seventh Circuit affirmed in part and reversed in part. The court ruled that the 1972 amendments had not pre-empted the federal common law of nuisance, but that "[i]n applying the federal common law of nuisance in a water pollution case, a court should not ignore the Act but should look to its policies and principles for guidance." 599 F.2d, at 164. The court reversed the District Court insofar as the effluent limitations it imposed on treated sewage were more stringent than those in the permits and applicable EPA regulations. The order to eliminate all overflows, however, and the construction schedule designed to achieve this goal, were upheld.

69 L.Ed.2d at 123.

In its decision in Milwaukee II, the Court reversed the Court of Appeals. It held:

> [A]t least so far as concerns the claims of respondents, Congress has not left the formulation of appropriate federal standards to the courts through application of often vague and indeterminate nuisance concepts and maxims of

> equity jurisprudence, but rather has occupied the field through the establishment of a comprehensive regulatory program supervised by an expert administrative agency. The 1972 amendments to the Federal Water Pollution Control Act were not merely another law "touching interstate waters" of the sort surveyed in Illinois v. Milwaukee, 406 U.S. at 101-103, and found inadequate to supplant federal common law. Rather, the amendments were viewed by Congress as a "total restructuring" and "complete rewriting" of the existing water pollution legislation considered in that case. . . . The establishment of such a self-consciously comprehensive program by Congress, which certainly did not exist when Illinois v. Milwaukee was decided, strongly suggests that there is no room for courts to attempt to improve on that program with federal common law. See Texas v. Pankey, 441 F.2d at 241.

68 L.Ed.2d at 126-128.

The Court expressly rejected an argument by Illinois about subsection 505(e), which provides that:

> Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief (including relief againt the Administrator or a state agency).

Federal Water Pollution Control Act § 505(e), 42 U.S.C.A. § 1365(e) (1978), quoted in 68 L.Ed.2d at 133 (emphasis added in the Court's quotation).

The Court stated:

> Respondents argue that this evinces an intent to preserve the federal common law of nuisance. We, however, are inclined to view the quoted provision as meaning what it says: that nothing in § 505, the citizen suit provision, should be read as limiting any other remedies which might exist.

68 L.Ed.2d at 133 (emphasis in original).

The recently proposed amendment of section 511 in S. 1716, which the Conferees rejected, zeroed in on this part of the opinion, paraphrased the language of section 505(e) and substituted "act" for "section." It thus sought to avoid in future cases in this field the "automatic displacement" approach about which the three dissenters in Milwaukee II complained. See 68 L.Ed. at 136 (Blackmun, J. dissenting). Thus, if proposed section 511(e) had become law, that would have been its intended goal. But even so, it by no means would have followed that the substantive result concerning the application of federal common law of nuisance in future cases analogous to Milwaukee II (suits by a State against another State, or against the subdivision of another State or against the citizens of another State) would have been different. The dissenters in Milwaukee II recognized this:

> What the Court today characterizes as the inappropriate application of more stringent standards from Illinois state law in fact reflects a federal common law court's proper exercise of choice-of-law discretion.

68 L.Ed.2d at 147.

Before leaving Milwaukee II to turn to National Sea Clammers, it is important to note that the keystone of the dissent in Milwaukee II was its focus on Article III, § 2 of the Constitution:

> Both before and after Erie, the Court has fashioned federal law where the interstate nature of a controversy renders inappropriate the law of either State. . . . When such disputes arise, it is clear under our federal system that laws of one State cannot impose upon the sovereign rights and interest of another. The Constitution, by Art. III, § 2, explicitly extends the judicial power of the United States to controversies between a State and another State or its citizens, and this Court, in equitably resolving such disputes, has developed a body of "what may not improperly be called interstate common law."
>
> Long before the 1972 decision in Illinois v. Milwaukee, federal common law enunciated by this Court assured each State the right to be free from unreasonable interference with its natural environment and resources when the interference stems from another State or its citizens. . . . The right to such federal protection is a consequence of each State's entry into the Union and its commitment to the Constitution.

68 L.Ed.2d at 137-138 (emphasis added).

From this perspective, one effect which the proposed section 511(e) would have had would have been to transfer the federal forum for determining the implied Constitutional rights of the States to equity in interstate pollution from Congress to the federal courts. But that would have raised the question of whether Congress, having once preempted a particular field of federal common law (and it is settled that Congress has done so through the FWPCA since the Supreme Court spoke definitively in Milwaukee II), can delegate what is or has become exclusively legislative power under the Constitution to the federal courts through this particular type of general, non-specific, declaratory legislation.

Measured against the newly re-invigorated doctrine of standardless delegation, the bare bones language of this proposed amendment of § 511 might well be unconstitutional. The same criticisms leveled at standardless delegation of legislative power to federal agencies may apply equally to standardless delegation of that power to the federal courts. In this regard, a recent Congressional summary of the doctrine and its application where power is delegated to federal agencies is of interest:

> This subsection of S. 1080 makes several changes to the provisions of the A.P.A. governing the scope of judicial review of agency actions. These amendments are premised on the basic constitutional principle that in a republic, legislative power must be exercised by elected representatives to whom this power has been delegated by the citizenry, see Field v. Clark, 143 U.S. 649, 692 (1892), and on a growing discontent with the degree to which Congress has delegated this power to administrative agencies. As Justice Douglas once asserted, "Unless we make the requirements for administrative action strict and demanding, expertise, the strength of modern government, can become a monster which rules with no practical limits on its discretion. Absolute discretion, like corruption, marks the beginning of the end of liberty." New York v. United States, 342 U.S. 882, 884 (1951) (dissenting opinion).
>
> One primary mechanism for control of agency discretion is the requirement that when the legislature delegates power, it must establish an "intelligible principle" to govern the delegation, and that the judiciary will hold invalid actions which are not authorized by the statutory delegation. Indeed, a number of recent opinions by members of the Supreme Court have underscored that need by emphasizing that absent clear Congressional guidelines as to the limits of

> delegated power and clear Congressional guidelines as to how, once delegated, the power is to be used, the purported grant may be unconstitutional. . . . Moreover, once Congress has done its duty by establishing such principles, the courts must do their duty by holding invalid actions which are not authorized by that statutory delegation. In the words of Mr. Justice Reed, "An agency may not finally determine the limits of its statutory power. That is a judicial function." Social Security Board v. Nierotko, 327 U.S. 358, 369 (1946).

S. Rep. No. 97-284, 97th Cong., 1st Sess. 164-165 (1981).

The recently proposed amendment in S. 1716 thus raised the novel legal question whether Congress, having once extinguished the "common law," which by definition is judge made rather than legislatively enacted, can revive it through the Constitutionally condemned legislative technique of standardless delegation. In the context of Milwaukee II, the problem is analogous to whether the Congress, having pushed Humpty Dumpty off the wall, can put Humpty Dumpty together again.

But even if Congress could Constitutionally revivify the federal common law of tort or nuisance in the context of the rights of the States, two additional questions were posed by the intended assault on National Sea Clammers. The first, the question which the majority opinion expressly left open, is:

> whether the federal common law of nuisance could ever be the basis of a suit for damages by a private party.

69 L.Ed.2d at 445, n. 17.

The second is whether, if such private rights are nonexistent under federal common law, Congress can create federal "common law" rights and remedies as distinguished from creating carefully defined federal statutory rights and remedies.

Turning to the first of these questions, the whole tenor of the majority opinions in Milwaukee II and National Sea Clammers, with their emphasis on the rights of the States inherent in our federal union, renders the chances of this Court's answering the first question in the affirmative doubtful. Should the answer to that question be negative, then the second question must be faced. That question is whether Congress has Constitutional power to create "common law" (analogous to "subject matter jurisdiction"). This question is to be distinguished from which Constitutional limitations, such as those posed by the doctrine of "standardless delegation", exist as to how that power may be exercised if existent (which I discussed above in the context of the "amended" § 511(e)'s potential effects in the Milwaukee II context).

Turning to the conundrum of whether Congress can create "common law," which by definition is judge made rather than legislatively enacted, we start with the fundamental principle

that the Founding Fathers denied the Federal Government the parens patriae powers of the British crown, carefully safeguarding that residium of sovereignty to the States. The traditional common law of tort and nuisance was thus retained by the States as incident to their police powers. As Professor Laurence Tribe has stated the principle in his treatise on constitutional law:

> Unlike their state and English counterparts, federal courts are not essentially common law tribunals. In the absence of specific congressional authorization, they lack the power to resort to a body of customary law, collected and defined in prior court decisions in order to resolve the cases which come before them.

Tribe American Constitutional Law § 3-31; See United States v. Hudson & Goodwin, 11 U.S. (7 Cranch) 32 (1812).

The nascent doctrine of federal common law of tort or nuisance is predicated on concepts of State sovereignty and federalism, rather than individual rights. References by the § 511(e) amendment's supporters to the antiquity of the federal common law were misplaced. It is State common law, rather than federal common law, that represents the unbroken line of judge made law and equity jurisprudence traceable to the sovereignty of the British crown. Indeed, it was respect for that same surviving essence of State sovereignty that gave rise in the first decade of this century to the doctrine of the federal common law of nuisance. See Comment, Requiem for the Federal

Common Law of Nuisance, 11 Envir. L. Rep. 10,191 (1981). ("The roots of the federal common law of nuisance reach back to the first decade of this century, when the Supreme Court for the first time acknowledged the jurisdiction of the federal courts to entertain cases brought by the states to abate pollution that has migrated across state lines . . . on the basis of rules borrowed from water apportionment cases and 'principles of federalism.'"); Cf. In re "Agent Orange" Product Liability Litigation, 635 F.2d 987 (1980), cert. denied, Chapman v. Dow Chemical Co., No. 80-1882 (Dec. 14, 1981). (No federal common law tort liability for suppliers of "Agent Orange").

What power then was the asserted or necessary jurisdictional basis for the amendment of § 511 that was posed in S. 1716? How can Congress legislate common law? It has no parens patriae powers. Moreover, Congress is not a court. Congress, a continent and three centuries removed, can not act like the House of Lords, treat the Supreme Court as an inferior Court of Appeal and order it to revise its ruling on the existence and extent of the common law.

Looking through form to reality, the recent Congressional attempt to extrapolate the Milwaukee I doctrine from transactions involving States' rights to those involving private individuals was an attempt to exercise the Commerce Power. Cf. Textile Workers Union v. Lincoln Mills, 353 U.S.

448 (1957) (labor relations "judicial inventiveness" based on Commerce power authorization). Thus the Senate's recent effort in S. 1716 amounted in substance to an effort through the amendment of the Clean Water Act § 511 to undercut National Sea Clammers and to achieve indirectly much of what was proposed specifically in S. 1480 in 1980 and rejected then by both Houses. If in reality Congress was proposing in S. 1716 to exercise its Commerce Powers, then as we noted above, the way in which it purported to exercise that power probably runs afoul of the Constitutional doctrine of "standardless delegation".

Moreover, the attempt raised profound policy questions that go to the heart of federalism. This session of Congress is also currently wrestling with the major policy problems presented when it exercises its Commerce powers in areas coincident with the traditional police powers of the states in another context: Federal Criminal Code legislation. It is helpful to recall that the landmark case establishing the absence of a general federal common law jurisdiction involved the specific question of whether federal circuit courts could exercise common law jurisdiction in criminal cases. United States v. Hudson & Goodwin, supra. The observations made by an American Bar Association Committee concerning the pending Federal Criminal Code legislation are equally apt to efforts

here to exercise the Commerce Power to restore, create or expand federal jurisdiction in areas of tort and nuisance:

> Use of criminal sanctions as an incidence of exercise of the Commerce Power usually coincides with regulation of conduct within the traditional police powers of the state. The potential for conflicts on a day-to-day basis between federal and state jurisdiction in these circumstances is obvious. The broader implications for continuation of our federal system are less obvious, but equally real. Broad use of the Commerce Power to criminalize conduct raises philosophical and policy questions going to the heart of our federal system -- a point made eloquently by the late Justice Robert H. Jackson:
>
> > The decided drift is in favor of a strengthened federal government. I think we should draw a line between the necessity for central regulation of commerce, in the sense of finance and trade, and the necessity for diffused control of such things as affect civil liberties. Because while the federal government occasionally may make a great advance in the direction of civil liberties that the state government would not make -- at least in some states -- for many years to come, they can also make a very disastrous reversal and do more harm to civil liberties in one administration than a state government could do in a generation. . . . I think the potentialities of a federal, centralized police system for ultimate subversion of our system of free government is very great.
>
> The use of the federal Commerce Power to criminalize conduct that is also within the traditional police power of the states is a trend which has continued throughout this century at an accelerating pace. This expansion has occurred not only in the areas traditionally regarded as "common law crime" but also in the areas of health and safety governed traditionally by "common law nuisance." Some of this expansion has been inevitable because modern means of transportation and communication have severely handicapped or thwarted state detection of crime and state

> apprehension of criminals. In most instances, however, the expansion of concurrent federal jurisdiction has been attributable to Congressional mistrust of, or impatience with, state government.

Ad Hoc Committee on the Federal Criminal Code, A Status Report on the Proposed Federal Criminal Code, 36 Bus. Law. 1085, 1092 (1981) (report of ABA Section of Corporation, Banking and Business Law).

Finally, in addition to questions of (1) the existence of Constitutional legislative power to act, and (2) the Constitutionality of the proposed means of exercise of such alleged power through standardless delegation of power to the courts, there was yet another question of statutory construction posed by the proposed amendment that also has Due Process implications. That question involves retroactivity, a subject which has been the subject of extended and lively debate in our study group.

Would S. 1716's cryptic provision attempting to revivify the federal common law of nuisance have applied retroactively? In future Milwaukee I and Milwaukee II type situations where the plaintiff is a State, would the amendment have applied to action that occurred between the date of the 1972 Amendments to FWPCA and the date of enactment of the § 511 amendment? In the National Sea Clammers type situations where private parties are plaintiffs, if the federal common law could be successfully revived or created Constitutionally by S. 1716, would the amendment have applied to actions that occurred prior

to the effective date of S. 1716? The statute would have been silent and the scant legislative history cryptic:

> The amendment, however, does not permit the litigants in those cases to reopen them by virtue of this clarification. In cases such as Milwaukee where the final determination has been made, the litigants must now live with it, unless there are legitimate reasons not created by this amendment to reopen or otherwise revive the suits.

127 Cong. Rec. S12246 (daily ed. Oct. 27, 1981).

If the section applied retroactively, it would certainly have changed the laws, to use the words of Senators Domenici, Bentsen, and Baker, "upon which industries and businesses have relied in assessing their exposure to liability and the availability of insurance when engaged in certain industrial activities." (S. Rep. No. 96-848, 96th Cong. 2nd Sess. 119 (1980). It would also have adversely affected existing insurers, compounding the problems faced by that industry in light of recent court opinions and rendering potential future insurance less likely or more costly. Cf. Keene Corp. v. Insurance Co. of North America, No. 81-1179 (D.C. Cir. Oct. 1, 1981) (interpreting "Comprehensive General Liability" policies to create insurer liability for asbestos injuries neither resulting from exposures nor manifesting disease during the policy period). The observations of these three Senators with regard to the third-party liability provision of S. 1480 were also apt as to S. 1716:

> The liability provisions of this bill alter two factors that affect business decisions: (1) the potential exposure of the company's assets to loss and (2) the availability of insurance to protect against these losses. The availability of insurance is particularly crucial to small and medium-sized businesses. However, insurance availability is largely dependent on developing the probabilities of the conditions under which payments would be made. Once these probabilities are defined, the availability, the coverage and the cost of insurance can be established. Thus, the analysis of both asset exposure and insurance availability largely hinges on the predictability of liability for a specific decision. Both of these factors appear to be adversely affected by the provisions of S. 1480.
>
> In general, the development and application of such concepts as strict liability, ultrahazardous activities, and joint and several liability to extensive third party damages take place over an extended time frame. During this period, asset risk assessment and insurance probabilities can be developed. Decisions can be made in an orderly manner. One result of S. 1480 is that it accelerates the development and application of these complex concepts. In doing so, it prevents the private sector decision-making process from being able to assess its liability risks.

S. Rep. No. 96-848, 96th Cong., 2nd Sess. 121 (1980).

The fundamental unfairness of changing the rules of liability retroactively and the lack of wisdom in acting in ignorance of the resulting consequences that would be visited upon businesses and insurance carriers were also recognized in 1980 in the Supplemental Views on H.R. 7020, of Congressmen Broyhill, Devine, Collins, Loeffler and Stockman. H. Rep. No. 96-1016(I), 96th Cong., 2nd Sess. 67-69, reprinted in [1981] U.S. Cong. & Ad. News 10272-10275. To paraphrase their views

in this new context, the fact is that we do not know the scope of the problem. We need to have the facts and reliable information before we allow an emotional reaction to force Congress to create (or recreate) a federal common law liability of nuisance. This bill could create tremendous new burdens on the federal courts and impose onerous and unreasonable liability standards. It could impose an inflationary fee on industry and unfairly place the burden on today's companies, shareholders, or customers for practices, failures and shortcomings of yesterday's industrial producers. This raises very substantial Constitutional questions under the Due Process Clause of the Fifth Amendment.

For overall perspective in wrestling with all these difficult questions, we need to remember that the federal common law that this proposed amendment sought to revive as to State plaintiffs is largely duplicative of extensive statutory remedies available to the States under a host of federal statutes, including FWPCA. We should likewise remember that the federal common law it sought to create, probably de novo, for private plaintiffs would be duplicative of State common law -- and that was the common law these Senators and Representatives (cited above) undoubtedly had in mind in the 1980 debates over the Superfund Act. Finally the "transactional" costs imposed on society in having to create

the substance of this duplicative federal common law system case by case would be enormous.

For all these reasons, Congress' recent experience with S. 1716 highlights some of the problems we have been wrestling with in our discussions.

4. For greater clarity, I think it would be better to deal with the Orthopedic Equipment Co. line of cases in the separate State law discussion suggested in 1 above.

5. I find your "Conclusion" troublesome for the following reason:

(a) The first sentence jumbles State and federal statutes together. Taking State law, the cases and other authorities you cite in Parts II, II and IV and the Orthopedic Equipment Co. line of cases do not support your conclusion. From what you have cited, I do not see how you or anyone else can say that State laws generally are deficient in that regard. However, I think a priori that your conclusion is correct with regard to interpretation of federal statutes. While the "federal common law" lines of cases you discuss in Part V essentially turn on the broader concept of the reconciliation of federalism and State sovereignty, they also deal with alleged implied statutory

remedies which the Court rejected. The separate treatment of the federal "statutory construction" issue and the "federal common law" question, which I suggest in 2 above, would help highlight your valid conclusion as to the application of federal principles of statutory construction of federal environmental statutes.

(b) Your second sentence in the first paragraph fails to distinguish between State and federal law. Again, I cannot tell whether or not State law is different in this regard.

(c) I agree with your second paragraph.

(d) As to your final paragraph, it is a macro-conclusion that does not necessarily follow from what has preceded it in this particular memorandum. I know that you believe this, but is this the place to say it? I am reminded of Cato the Elder, who always exercized his right to add one more sentence to his every sententia: "For the rest, it is my opinion that Carthage must be destroyed." Does your voicing your ultimate

Attachment B

[illegible]
STAFF DIRECTOR
[illegible] STAFF DIRECTOR

United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, D.C. 20510

April 29, 1982

Mr. James R. Zazzali
Chairman
Superfund 301(e) Study Group
Gateway 1
Newark, New Jersey 07724

Dear Mr. Zazzali:

This is to request that the Committee created by section 301(e) of P.L. 96-510, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, examine the implications of certain recent Supreme Court decisions.

We are specifically concerned with the rationale and consequences of City of Milwaukee v. Illinois, 451 U.S. 301 (1981), and Middlesex County Sewerage v. National Sea Clammers Association, 49 U.S.L.W. 4783 (1981). These cases hold that the existence of a comprehensive scheme of Federal regulation displaces the Federal common law. The consequence of this holding is to effectively eliminate a Federal private cause of action for damages since Federal regulatory schemes do not typically provide such recourse. The rationale of Milwaukee could extend beyond environmental statutes to include laws regulating the design and safety of automobiles, the marketing of medical devices, the provision of medical care, and a host of other areas. Similarly, application of the Milwaukee decision to eliminate common law at the Federal level could give rise to arguments for eliminating common law at the State level.

It is our fear that Milwaukee and Sea Clammers pose a nascent threat to the already limited ability of injured parties to obtain adequate relief under law, especially for injuries caused by toxic substances. Certainly, both subtitle C of the Solid Waste Disposal Act and the Toxic Substances Control Act could be construed as comprehensive schemes of regulation, as might companion laws at the State level. Although these laws are arguably "comprehensive" under Milwaukee, the Congress has not yet adopted an explicit Federal cause of action for general damages caused by exposure to toxic substances. Instead, these statutes and P.L. 96-510 expressly preserve remedies under other law, in language much like that in the Clean Water Act.

Thus, while these laws broadly regulate behavior with regard to toxic materials, they are not truly comprehensive because they do not provide an adequate substitute for the common law or private rights of action.

Since the Committee was created to examine issues related to the compensation of victims, it seems appropriate for you to examine these decisions and their implications for victim recovery. We would appreciate your doing this if at all possible and providing us with the Committee's views, either as part of the report required by law or separately.

If you have any questions concerning this request, Mr. Curtis Moore and Mr. Phil Cummings of the Committee staff may be reached at 202-224-5761 and 202-224-7843 respectively.

Thank you in advance for your assistance and advice.

Sincerely yours,

Jennings Randolph
Ranking Minority Member

Robert T. Stafford
Chairman

cc: Committee Members
Carol Dinkins

Attachment C

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ROBERT FITZSIMMONS (N.Y. BAR)
OF COUNSEL

PLEASE REPLY TO NEWARK

June 25, 1982

The Honorable Robert T. Stafford, Chairman
The Honorable Jennings Randolph, Ranking Minority Member
United States Senate
Committee on Environment and Public Works
Washington, D.C. 20530

Dear Senator Stafford and Senator Randolph:

This is in response to your inquiry of April 29, 1982 addressed to the Superfund Study Group (created under §301 (e) of P.L. 96-510) concerning the implications of the recent Supreme Court cases on the federal common law of nuisance.

Your question relating to the consequences of the holdings in City of Milwaukee v. Illinois, 451 U.S. 301 (1981) and Middlesex County Sewerage v. National Sea Clammers Association, 49 U.S. L.W. 4783 (1981) were discussed by the Study Group at its May meeting, and the Group was of the view, as suggested in your letter, that the issues you mention would be more adequately covered in the framework of the Study Group's report, which is about to be completed.

I am able to note at this time that the implications of the cases mentioned on federal private causes of action are covered in our report at some length.

We appreciate your sharing with us your concerns on the subject.

Sincerely yours,

James R. Zazzali
Chairman
Superfund §301(e) Study Group

JRZ/ab
CC: All Superfund Study Group Members

Attachment D

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May 17, 1982

FILE NO.

DIRECT DIAL NO. 804 788- 8365

Superfund

Gentlemen:

I thought that you might find the following enclosures helpful:

1. Karen Donegan's minutes for me of our April 15 and 16 meeting (I understand that the Justice Department minutes mailed out on Friday only cover the first day);

2. Fred Light's memorandum to me of May 14, which covers the "new" point (possible preemption of State common law by the Superfund Act) raised by the letter we recently received from Senators Stafford and Randolph; the "old" point (Milwaukee, Sea Clammers and Federal common law) was covered in Frank Grad's memo of December 1, 1981, and my letter of December 16, 1981 to him commenting on it.

I would like to point out that the last enclosure also goes on its Section IV to discuss a major matter outside the scope of the two Senators' letter. Fred addresses the tough question of statutory interpretation of the current Superfund Act touched upon on the second day of our April meeting: Does the Superfund Act tax preempt state superfund type taxes? That issue has already been raised in litigation in New Jersey. In addition to summarizing the arguments that have been made in that pending litigation, Fred has a fairly thorough discussion of the constitutional problem presented if the Superfund Act is interpreted as intended to preempt the special New Jersey tax.

Fred's memorandum strengthens the case for our responding affirmatively to the suggestions made by our friends from Minnesota at our last meeting for the Group's report to advise Congress of the current problem of the States in actually getting Super funds from EPA for expedited clean up. They said that States that want to move ahead promptly with clean up are currently in a bind if EPA continues to hold up the prompt dispersal of the Fund to the States. Should EXXON prevail in the current New Jersey legislation, both on the statutory construction and the constitutional issues, the only source of funds at the State level might be general tax revenues.

If the preemption was intended and is constitutional, the underlying policy premise would be that Congress created an exclusive funding mechanism that would basically solve the State's major clean up problems in this area and that Congress thought a duplicate tax system would impose unnecessary burdens on interstate commerce. EPA's current pace of response to State requests for clean up funds would appear to contradict that premise.

Sincerely,

George C. Freeman, Jr.

Members of the § 301(e)
Superfund Study Commission

Enclosure 1 - Karen Donegan's Minutes of April 15-16, 1982

Enclosure 2 - Fred Light's Memorandum of May 14, 1982

MEMORANDUM

TO: George C. Freeman, Jr., Esq. DATE: May 14, 1982

FROM: Alfred R. Light

SUPERFUND 301(E) STUDY

RESPONSE TO SENATE ENVIRONMENT AND PUBLIC WORKS INQUIRY TO SUPERFUND 301(E) STUDY GROUP

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SUPERFUND 301 (E) STUDY

RESPONSE TO ENVIRONMENT AND PUBLIC WORKS COMMITTEE INQUIRY TO SUPERFUND STUDY GROUP

The Superfund Section 301(e) Study Group discussion draft of April 5, 1982, and our supplement to it address the topic of the non-existence of federal common law after the passage of comprehensive federal regulatory legislation. See, Draft, Part III, at 66-76. The rationale of the United States Supreme Court confirming that non-existence applies to air pollution, hazardous waste disposal and other environmental areas outside the specific water pollution context of the Milwaukee [City of Milwaukee v. Illinois, 451 U.S. 304 (1981)] and National Sea Clammers [Middlesex County Sewerage Authority v. National Sea Clammers Association, 453 U.S. 1 (1981)] cases. As you explained in detail in your letter to Professor Grad of December 16, 1981, Congress must provide an express private right of action under a comprehensive regulatory scheme if it wishes to provide for any private right of action. Thus, it is unnecessary to discuss this matter again in detail.

I. THE CONGRESS CANNOT CREATE A FEDERAL COMMON LAW THROUGH THE DEVICE OF A SAVINGS CLAUSE AND DID NOT DO SO IN THE SUPERFUND ACT.

However, one preliminary issue in this regard merits some further explanation--the non-existence of an implied right of action under the Superfund Act. In this respect, Senator Stafford's reported remarks about the Superfund Act are simply misplaced. Neither S. Rep. 96-13 (the Six Cases study) nor S. 1480, as introduced or as reported, nor the report on S. 1480 (S. Rep. 96-848) nor the final compromise Superfund bill (P.L. 96-510) explicitly address the existence or non-existence of a federal common law of tort or nuisance. The section of the Superfund Act to which Senator Stafford has referred in public statements, section 302(d), 42 U.S.C. § 9652(d), simply provides:

> Nothing in this Act shall affect or modify in any way the obligations or liabilities of any person under other Federal or State law, including common law, with respect to releases of hazardous substances or other pollutants or contaminants.

That provision does not create or induce a federal common law by the statutory technique of a savings clause. Such an "implied right of action" created in lieu of an express statutory remedy is precisely the creature condemned in the Milwaukee and National Sea Clammers cases. And, as you noted in your letter to Frank Grad of December 16, 1981, it is highly unlikely that Congress could directly legislate the creation or revivification of "common law."

This is not new constitutional doctrine. In Erie Railroad Co. v. Tompkins, 304 U.S. 68, 78 (1937), Justice Brandeis noted, "Congress has no power to declare substantive rules of common law whether they be local in nature or 'general', be they commercial law or part of the law of torts." Federal courts are forbidden under these cases' reasoning from implying rights Congress has not expressly legislated where there is a comprehensive regulatory scheme. Thus, the Superfund Act and RCRA taken together require courts "to conclude that, if federal common ever governed this type of activity, it has since been preempted by those statutes." United States v. Price, 523 F.Supp. 1055, 1069 (D.N.J. 1981); cf. United States v. Kin-Buc, Inc. 532 F.Supp. 699 (D.N.J. 1982) (Clean Air Act); Connecticut v. Long Island Lighting Co., No. CV 81-1136 (E.D.N.Y. Mar. 24, 1981) (Clean Air Act); Pruitt v. Allied Chemical Corp., 523 F.Supp. 975 (E.D.Va. 1981) (Clean Water Act); Chesapeake Bay Foundation, Inc., v. Virginia State Water Bd., 495 F.Supp. 1229 (E.D. Va. 1980).

Indeed, the legislative compromise establishing the Superfund Section 301(e) Study Group itself resulted in part from the decision to delete the "third party liability provisions" from S. 1480. Were the Act's savings clause authorization for courts to create an implied private right of action under the Superfund Act notwithstanding the deletion of these provisions, that deletion would have in fact been ineffective and the "compromise" meaningless. Congress expressly addressed

the possibility of third party liability in considering S.1480 and expressly rejected such a remedy. Clearly, there is no room for a court to imply a right of action in such a context.

The letter of April 29, 1982, from Senators Stafford and Randolph to the Superfund 301(e) Study Group suggests, however, additional concerns. The first is whether Milwaukee v. Illinois, 451 U.S. 304 (1981), and Middlesex County Sewerage Authority v. National Sea Clammers Association, 453 U.S. 1 (1981) can [or should] be interpreted to mean that a federal comprehensive statutory scheme of regulation preempts the State common law of tort or nuisance or, indeed, State statutory rights of action. The second issue is whether courts interpreting State law might make an argument analogous to the Supreme Court's rationale in Milwaukee -- that State statutory law has supplanted State common law. A final issue raised is the constitutional power of the Congress to preempt State statutory or common law.

II. THE MILWAUKEE AND NATIONAL SEA CLAMMERS OPINIONS CANNOT BE USED TO ARGUE THAT STATE LAW HAS BEEN DISPLACED BY A COMPREHENSIVE STATUTORY SCHEME.

Senator Stafford has stated his concern about the effect of the Milwaukee decision upon State law on a number of occasions. E.g., Stafford to Press for CWA Change Restoring Common Law Rights in Lawsuits, INSIDE EPA 14 (Jan. 15, 1982). For example, the Senator explained on the Senate floor last December:

> Moreover, if Federal common law is to be displaced there is the unacceptable risk that State common law might be displaced as well. In fact, in a recent Massachusetts case--McMahon against Amoco Oil Co.--the State sued for contamination of ground water caused by waste oil. This was not covered by the Massachusetts water pollution control act, so the suit was based on State common law. The defendant, Amoco, raised as a defense the Milwaukee case, asserting that State common law had been displaced. This was rejected by the court, but illustrates the dangerous potential of the Milwaukee decision.

127 Cong. Rec. S15640 (daily ed. Dec. 16, 1981) (remarks of Sen. Stafford).

Senator Stafford went on to say,

> As I stated, [Milwaukee] is already being brought up as a defense to a suit based on State common law. . . I do not believe the Congress has yet addressed the issue of displacement, generally. There is, however, one recent law which explicitly addressed the problem. That is the superfund. And, I might note, it expressly preserved both Federal and State common law, even in cases of compliance with Federal permits under the Clean Water Act or other statutes.

127 Cong. Rec. S15641 (daily ed. Dec. 16, 1981) (emphasis added).

Senator Stafford need have no fear in this area. A simple reading of the Milwaukee case reveals clearly that the Supreme Court's view of State common law is entirely different from that of the problematic federal common law that has been displaced (to the extent it ever existed) by federal environmental statutes. In Milwaukee, Justice Rehnquist wrote:

> Federal courts, unlike state courts, are not general common law courts and do not possess a general power to develop and apply their own rules of decision . . . . When Congress has not spoken to a particular issue, however, and when there exists a "significant conflict between some federal policy

> or interest and the use of state law," the Court has found it necessary, in a "few and restricted" instances, to develop federal common law.

451 U.S. at 312 (emphasis added, citations omitted).

In a footnote, the Court noted:

> In this regard, we note the inconsistency in Illinois' argument and the decision of the District Court that both federal and state nuisance law apply to this case. If state law can be applied, there is no need for federal common law; if federal common law exists, it is because state law cannot be used.

451 U.S. at 313n.7.

The Court went on to distinguish explicitly the two "common law" situations:

> Contrary to the suggestions of respondents, the appropriate analysis in determining if federal statutory law governs a question previously the subject of federal common law is not the same as that employed in deciding if federal law pre-empts state law. In considering the latter question "we start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress." While we have not hesitated to find pre-emption of state law, whether express or implied, when Congress has so indicated, or when enforcement of state regulations would impair "federal superintendence of the field," our analysis has included "due regard for the presuppositions of our embracing federal system, including the principle of diffusion of power not as a matter of doctrinaire localism but as a promoter of democracy." Such concerns are not implicated in the same fashion when the question is whether federal statutory or federal common law governs, and accordingly the same sort of a clear and manifest purpose is not required.

451 U.S. at 316 (emphasis added, citations omitted).

The Court further explained its strong distinction:

> Since the States are represented in Congress but not in the federal courts, the very concerns about

> displacing state law which counsel against pre-emption of state law in the absence of clear intent actually suggest a willingness to find congressional displacement of federal common law. Simply because the opinion in Illinois v. Milwaukee used the term "pre-emption," usually employed in determining if federal law displaces state law, is no reason to assume the analysis, used to decide the usual federal-state questions is appropriate here.

451 U.S. at 317n.9 (emphasis in original).

The Court reached its conclusion that Congress has supplanted federal common law with the words:

> The establishment of such a self-consciously comprehensive program by Congress. . . strongly suggests that there is no room for courts to attempt to improve on that program with federal common law.

451 U.S. at 319.

In a footnote to that very sentence, the court reiterated its important distinction between federal and State common law:

> Cases recognizing that the comprehensive character of a federal program is an insufficient basis to find pre-emption of state law are not in point, since we are considering which branch of the Federal Government is the source of federal law, not whether that law pre-empts state law. Since federal courts create federal common law only as a necessary expedient when problems requiring federal answers are not addressed by federal statutory law, the comprehensive character of a federal statute is quite relevant to the present question, while it would not be were the question whether state law, which of course does not depend upon the absence of an applicable act of Congress, still applied.

451 U.S. at 319n.14 (emphasis added, citations omitted).

Later the Court reiterated the distinction once again:

> It is one thing, however, to say that States may adopt more stringent limitations through state administrative processes, or even that States may establish such limitations through state nuisance

> law, and apply them to in-state discharges. It is quite another to say that the States may call upon federal courts to employ federal common law to establish more stringent standards applicable to out-of-state dischargers.

451 U.S. at 327-28 (emphasis in original).

The dissent in the Milwaukee case by Justice Blackmun also recognized that the majority opinion did not imply any preemption of State law. Blackmun thought the decision implied exactly the opposite:

> By eliminating the federal common law of nuisance in this area, the Court in effect is encouraging recourse to state law wherever the federal statutory scheme is perceived to offer inadequate protection against pollution from outside the State, either in its enforcement standards or in the remedies afforded. This recourse is now inevitable under a statutory scheme that accords a significant role to State as well as federal law . . . I fear that today's decision will lead States to turn to their own courts for statutory or common law assistance in filling the interstices of the federal statute.

451 U.S. at 353.

There is absolutely no basis whatsoever for the fear that the Milwaukee case could be construed to preempt State tort law.

The McMahon case Senator Stafford cites as illustrating "the dangerous potential of the Milwaukee decision" to displace State common law instead clearly demonstrates the lack of any basis for the Senator's fear:

> Milwaukee v. Illinois is particularly inapposite since its holding that the enactment of the Federal Water Pollution Control Act displaced earlier federal common law was compelled by a recognition that federal common law is merely a "necessary expedient" and "federal courts, unlike state courts, are not general common law courts and do not possess a general power to develop and apply their own rules of decision."

McMahon v. Amoco Oil Co., No. 36608 (Mass. Super. Ct., Suffolk Co., Jun. 24, 1981), slip. op., at 8-9 (citations omitted).

In Middlesex County Sewerage Authority v. National Sea Clammers Association, the other case cited by Senators Stafford and Randolph in their letter of April 29, the Court found it unnecessary to discuss the distinction between State and federal common law which had been made so clearly in the Milwaukee case. The respondents' one claim in that case based on State tort law had been dismissed without prejudice by the lower court apparently because summary judgment for the defendant was granted on all the federal claims to which the state claim was pendent. 453 U.S. at 5n.8. The petitions for certiorari to the Supreme Court raised questions concerning the applicability of state tort claims act and the Eleventh Amendment to tort suits in federal court, but the questions were not "within the scope of the questions on which review was granted." 453 U.S. at 8n.12. The possibility of justifying federal preemption of State common law based on the National Sea Clammers case is just as far fetched as that same possibility with respect to the Milwaukee case.

III. COURT INTERPRETATION OF STATE LAW IS BEYOND FEDERAL POWER TO REGULATE, AND COURTS MAY HOLD THAT A STATE STATUTE HAS DISPLACED COMMON LAW.

The second additional issue raised in the April 29 inquiry of the Superfund Study Group is suggested obliquely by the Senators' comment, "[A]pplication of the Milwaukee decision

to eliminate common law at the Federal level could give rise to arguments for eliminating common law at the State level." This issue is whether courts interpreting State law may develop a doctrine analogous to that expressed in the Milwaukee case and decide that State statutory law has supplanted State common law. In a fundamental sense, however, this is no concern of Congress since that body has no power to legislate or amend State statutory or common law, unless the Supreme Court unexpectedly rules otherwise in the pending FERC v. Mississippi case (No. 80-1749).

A memorandum from the Minnesota attorney general accurately summarizes this constitutional limitation on Congressional power in the context of a dispute which arose under the Clean Air Act:

> The issue of whether the federal government may require states to adopt specific legislation has been litigated in the last few years. Several cases developed out of the use of Transportation Control Plans developed by EPA pursuant to Clean Air Act's pre-1977 provisions. Professor Richard Stewart described the issue in an article entitled, "Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy," 86 Yale L. Rev. 1196 (1977).
>
> > Under the Clean Air Act, the states have responsibility to adopt state implementation plans [prior to the 1977 amendments] (SIPS) for regions of the state to control pollution sources to the extent necessary to achieve federal ambient standards. If the EPA judges an SIP to be inadequate, it is required to disapprove the SIP; if the responsible state declines to revise the SIP so as to ensure achievement of federal ambient standards, the EPA is required to promulgate an adequate SIP for that region. Many states

failed or refused to adopt SIPs with automobile emissions controls adequate to meet the federal ambient standards because the necessary restrictions on parking and automobile use were strenuously opposed by downtown merchants, commuters, and others dependent upon automobile use and access. There was also bitter resistance by developer interests to EPA efforts to secure state adoption of restrictions on new "indirect sources" of pollution, such as shopping centers, large parking facilities, sports complexes and highways, which would attract a heavy concentration of automobiles. As a result, the EPA was required in many instances to devise transportation control plans (TCPs) and indirect source controls for inclusions in state SIPs. This step was only the beginning of the EPA's troubles. State and local officials refused to enforce many of the agency's unpopular controls. . . . .Lacking the resources itself to impose sweeping restrictions on parking and automobile access in most of the nation's major cities, the EPA issued regulations requiring states either to adopt adequate transportation controls or to implement EPA drafted controls. The regulations provided that failure by state officials to implement TCPs would itself constitute a violation of the SIP, exposing the state to EPA enforcement orders and civil or criminal penalties. Several states sought judicial review challenging the regulations and denying their liability or civil sanctions for failure to submit to EPA demands. Three of the four courts of appeals that heard such cases denied, in whole or in part, the enforcement power asserted by the EPA against state officials. Adverting to grave constitutional problems that would be raised by congressional coercion of state officials to carry out federal programs, two courts construed the statute to avoid constitutional questions and found that Congress had not conferred the disputed enforcement powers. The third court found that enforcement authority had been granted by Congress, but held the authority to be in part unconstitutional.

Id. 1203-05 (footnotes omitted).

While not reaching the constitutional issue, the Third Circuit Court of Appeals stated that:

> We have found no appellate case save one. . .which may be construed as holding that the nation may direct the legislature of a state to act, for it is one thing to strike down a state law under the supremacy clause, or to decide that a state which chooses to engage in activities which Congress has a right to control must do so on Congress' terms, or to hold that Congress may induce a state to act by offering favors or exacting financial penalties if it does not, but it is quite another thing to extract from a state a most fundamental attribute of its sovereignty.

Maryland v. EPA, 530 F.2d 215 (4th Cir. 1975), vacated sub. nom. EPA v. Brown, 431 U.S. 99 (1976).

Memorandum from Leroy C. Paddock to Eldon Kaul, State of Minnesota Attorney General's Office, State Administration of Tier One, dated April 30, 1982.

Thus, the federal government is limited to inducements of legislative changes in state law.

It is difficult to perceive any legitimate federal interest whatsoever enabling it to induce or influence a court's interpretation of State law. Any such Congressional attempt would violate the Tenth Amendment to the United States Constitution under the National League of Cities [National League of Cities v. Usery, 42 U.S. 833 (1976)] interpretation. This is the reason that led us to question the constitutionality of some provisions of recent legislative proposals, e.g. the Federal Products Liability bills.

It is helpful to remember that the federal courts always have recognized that interpretations of State law by the State supreme courts are not subject to appeal to the federal courts and must be followed in the federal courts to the extent matters involving those interpretations arise in cases properly before them.

Notwithstanding our view that the Constitution puts matters of interpretation of State law beyond the reach of Congressional power to regulate, I have researched the substantive question asked by the two Senators. Under principles of statutory construction adhered to in virtually all of the States, it is clear that State statutes can and often do preempt previously extant State common law. As a general matter, the common law "prevails throughout the United States except where modified, changed, or repealed by statute or constitutional provision." 15A Am.Jur.2d Common Law § 13 (1976). When a statute and the common law conflict "the common law yields to the statute to the extent of the inconsistency, but where the legislative intent is shown to encompass an entire area, then that statute preempts the common law." Watkins v. State, 42 Md. 349, 400 A.2d 464, 467 (1979), cf. McMahon v. Amoco Oil Co., supra, at 9 ("a statute is not to be interpreted to displace a principle of common law absent a manifest legislative intention to reach that result or a direct inconsistency between the statute and the common law.").

State court inquiry primarily is focused on state legislative intent. In this respect, State courts' reasoning is quite similar to that evident in the Milwaukee and National Sea Clammers cases. State statutes which provide for a specific matter already covered by a common law rule but omit a portion of that rule can be interpreted to indicate a legislative intent to repeal those portions omitted. 73 Am.Jur.2d Statutes § 185 (1974). However, if a statute does not look to a common law rule in its entirety and merely touches upon portions of the rule, the remaining portions not considered are not repealed or abrogated. See Fabricius v. Montgomery Elevator Co., 254 Iowa 1319, 121 N.W.2d 361 (1963); Pennsylvania Mutual Life Insurance Co. v. Hunt, 237 Mass. 241, 129 N.E. 391 (1921); Tucson Gas & Electric v. Schantz, 5 Ariz.App. 511, 428 P.2d 686 (1967); State v. Barne 133 Neb. 676, 276 N.W. 676 (1937). A legislature may abrogate or change common law by statute without providing an adequate substitute. Magierowski v. Buckley 39 N.J.Super. 534, 121 A.2d 749 (1956).

Sands has summarized the principles courts use in deciding the common law displacement issue:

> [A statutory interpretation is favored which] preserves the rights or benefits enjoyed under the common law where the result avoids absurdity, retroactivity, unconstitutionality, is in keeping with good policy, is consistent with what is otherwise indicated to be the purpose of the legislation, or is evident from a consideration of the statute read as a whole and in conjuction with other related statutes.

3 SUTHERLAND STATUTORY CONSTRUCTION § 61.02 (Sands, 4th ed., 1972).

In recent times, there has been a tendency to construe remedial State statutes less strictly and thus to find that State statutes indicate a change in the policy of the law in derogation of the prior common law. 3 SUTHERLAND STATUTORY CONSTRUCTION § 61.03. Many States have adopted laws that seek to change courts' strict interpretations of statutes which displace the common law, but these laws generally are meant simply to eliminate bias toward either a liberal or strict construction. 3 SUTHERLAND STATUTORY CONSTRUCTION § 61.05.

IV. CONGRESSIONAL POWER TO PREEMPT STATE LAW, WHETHER STATUTORY OR COMMON LAW, IS LIMITED BY THE PRINCIPLES OF FEDERALISM EMBEDDED IN THE CONSTITUTION

A third issue raised by Senator Stafford's and Senator Randolph's letter, albeit indirectly, is whether there are constitutional limits to Congress' power to extinguish or supplant State law even if it decides to do so expressly. The question arises in the context of the Superfund Act because of its section 114(c) which purportedly preempts State taxation to some extent. This constitutional issue may eventually be raised in the context of the New Jersey Spill Compensation Fund controversy in that State's courts or in challenges to one of the other State Superfunds.

The incredibly complex jurisdictional aspects of the New Jersey controversy prevented Exxon and its co-plaintiffs from receiving a definitive ruling in any State or federal

court on any of the substantive tax preemption issues raised by the simultaneous taxation of industry under both federal and New Jersey "Superfund" Acts until April 23, 1982. The New Jersey Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq. was enacted in 1977. The federal Superfund Act, 42 U.S.C. § 9601 et seq, was enacted in December 1980. Section 114(c) of the federal Act states that:

> Except as provided in this Act, no person may be required to contribute to any fund, the purpose of which is to pay compensation for claims for any costs of response or damages or claims which may be compensated under this title. Nothing in this section shall preclude any State from using general revenues for such a fund, or from imposing a tax or fee upon any persons or upon any substance in order to finance the purchase or prepositioning of hazardous substance response equipment or other preparations for the response to a release of hazardous substances which affects such State.

42 U.S.C § 9614(c) (emphasis added).

Exxon reads this section to mean that it "precludes the state of New Jersey from collecting from a person who is already paying into the Federal Superfund a tax, the purpose of which is to pay compensation for a response or claim which may be compensated under the Superfund Act." Exxon et al v. Hunt et al., No. 81-1458M, Amended Complaint, filed May 29, 1981 (D.N.J.), ¶ 20 HAZARDOUS WASTE LITIGATION REP. 1578, 1581 (Nov. 3, 1981). The State of New Jersey reads the provision far more narrowly such that "[t]he preemption language does not extend to cleanup costs which are not in fact compensated by Superfund." Exxon et al. v. Hunt et al., No. SC 303A-81, Brief

and Appendix in Support of State Defendants' Motion for Summary Judgment, Oct. 30, 1981, at 23; HAZARDOUS WASTE LITIGATION REP. 1606, 1617 (Nov. 17, 1981). The statutory interpretation question is complicated by the fact that the federal Superfund bill which passed "had virtually no legislative history at all." Grad, A Legislative History of the Comprehensive Environmental Response, Compensation and Liability ("Superfund") Act of 1980, 8 COLUM.J.ENVIR.L. 1, 1 (1982). Self-serving colloquy and soliloquy by individual Senators and Congressmen are, as both plaintiff and defense lawyers are beginning to discover, much more ambiguous than usual legislative histories and, more important, less and less persuasive with the courts, whose sophistication as to how legislative history is grossly manipulated is growing rapidly.

On the preemption issue, New Jersey often cites its own Senator's colloquy with Senator Randolph:

> Bradley: And am I also correct in noting that State funds are preempted only for efforts which are in fact paid for by the Federal fund and that there would be no preemption for efforts which are eligible for Federal funds but for which there is no reimbursement?
>
> Randolph: That is correct.

126 Cong. Rec. S14981 (daily ed. Nov. 24, 1980).

On the other extreme, the chemical industry can point to Senator Helms' understanding of what had been done in section 114(c):

> In addition, I have long supported state participation in any superfund bill dealing with hazardous waste sites. This is both a Federal and State problem. States have benefited from an industrial location within their borders in salaries to employees, and in state taxes paid by the corporations--We have seen the sad results of turning to the Federal government to solve problems that could and should have been solved by local and state governments.
>
> In that regard, I note that the compromise bill has eliminated any state "superfund" by preempting any participation by the chemical industry . . .

126 Cong. Rec. S15004 (daily ed. Nov. 24, 1980).

Other solons' positions on the preemption section fall between these two extremes. For example, Congressman Florio stated that successful State spill funds could continue to use such funds to pay for damages not compensable under the Act and that Congress would not be preempting the States' collection of taxes or fees for other funds associated with releases. 126 Cong. Rec. H11788 (daily ed. Dec. 3, 1980); see Grad, supra, at 31.

The State of New Jersey was able to exploit this substantial ambiguity in the federal Act's scant legislative history to get its state tax court to adopt its preemption postion. That court was very careful, however, to clarify that even if the state fund had been preempted for some purposes by section 114(c), that did not mean that the tax had been preempted for all purposes. The length and detail of its opinion in this regard suggests the court's own uneasiness about its total adoption of the state's interpretation of section 114(c).

Exxon et al v. Hunt et al, No. SC 303A-81, SC 319A-81TC (N.J. Tax Ct., April 23, 1982, HAZARDOUS WASTE LIT. REP. 2470, 2481 (May 18, 1982). The court stated, "[E]ven if § 114(c) of super fund could be construed to preempt part of spill fund the aforementioned non-preempted areas are more than sufficient to sustain its continued validity." The State was also successful in convincing the Reagan Administration to accept New Jersey's position and thus to settle the lawsuit brought by New Jersey legislators against the federal government. Lesniak v. United States, Nos. 81-977, 81-1914 (D.N.J.), Stipulation of Settlement, HAZARDOUS WASTE LIT.REP. 2121 (Mar. 2, 1982). Therefore the State has not yet needed to raise the substantial constitutional issue which is [or would be] raised by a national government attempt to broadly extinguish a State tax source.

Congressional exercise of its interstate commerce power to limit State taxation prior to the Superfund Act had been extremely limited. For example, in the Airport Development Acceleration Act of 1971, 49 U.S.C. § 1513, which prohibits States from levying taxes on persons traveling in air commerce or on gross receipts derived from air commerce, Congress exempted property taxes, net income taxes, franchise taxes, sales or use taxes on the sale of goods and services, and airport control charges and loading fees from the prohibition. Similarly, in 1975, Congress prohibited States from taxing railroad property, but it prohibited only taxation which imposed a tax burden more heavily on such property than that

imposed on other industrial or commercial property. 49 U.S.C. § 26c. The Tax Reform Act of 1976 prohibits States from levying a tax "with respect to the generation or transmission of electricity which discriminates against out-of-state manufacturers, producers, wholesalers, retailers or consumers of electricity." 15 U.S.C. § 391.

These three statutes reflect the circumspect way in which Congress typically had approached restriction of the States' taxing powers prior to the Superfund Act. Although Congress has broad authority to limit State regulatory authority when that authority affects interstate commerce, historically there has been a Congressional sense that the States' taxing power is special, warranting special caution in the invocation of its Commerce Clause powers. Even in the regulatory area, it is probable that the federal commerce power is also limited by principles of federalism. For example, the Court of Appeals for the District of Columbia has held in the context of the regulatory requirements under the Clean Air Act to which the Minnesota attorney general's memorandum referred:

> [T]the Administrator [of EPA], in the exercise of federal power based solely on the commerce clause, cannot against a state's wishes compel it to become involved in administering the details of the regulatory scheme promulgated by the Administrator. For example, the attempt to require the state to "establish" each of the retrofit programs and to "evaluate and approve devices for use in this program,". . . .is an impermissible encroachment on state sovereignty and goes beyond "regulation by Congress."

District of Columbia v. Train, 521 F.2d 971 (D.C. Cir. 1975), vacated sub. nom. EPA v. Brown, 431 U.S. 99 (1976).

In any event some areas of State power, such as the State taxing power, do appear to lie closer to the heart of state sovereignty than most regulatory areas. In McCulloch v. Maryland, the first Chief Justice wrote--

> That the power of taxation is one of vital importance; that it is retained by the states; that it is not abridged by the grant of similar power to the government of the Union; that it is to be concurrently exercised by two governments; [these] are truths which have never been denied.

17 U.S. (4 Wheat.) 316, 425 (1819).

Alexander Hamilton in The Federalist noted that the Constitution allowed the States to "retain an independent and uncontrollable authority to raise revenues to any extent of which they may stand in need by every kind of taxation except duties on imports and exports." THE FEDERALIST No. 33 (J. Cooke ed. 1961), at 258. Hamilton concluded that "a law abrogating or preventing the collection of a tax laid by the authority of a state [unless upon imports and exports] would not be the supreme law of the land but an usurpation of power, not granted by the Constitution." Id, at 208.

At some point, the Congressional commerce power reaches its limit at the State's sovereign taxing power. In National League of Cities v. Usery, 42 U.S. 833, 855 (1976), the Supreme Court stated:

> Congress may not exercise [its commerce power] . . . so as to force directly upon the States its choices as to how essential decisions regarding the conduct of integral governmental functions are to be made. We agree that such assertions, if included, would indeed . . . allow "the National Government [to] devour the essentials of state sovereignty."

The Tenth Amendment, Justice Rehnquist wrote, is "an express declaration" that "our federal system of government imposed definite limits upon the authority of Congress to regulate the activities of the States as States by means of the commerce power." Id., at 842.

In Hodel v. Virginia Surface Mining and Reclamation Ass'n, 452 U.S. 264 (1980), the Supreme Court reiterated the Court's three-part test for deciding whether congressional legislation is unconstitutional:

> First, there must be a showing that the challenged statute regulates the "States as States." . . . Second, the federal regulation must address matters that are indisputably "attributes of State sovereignty." . . . And, third, it must be apparent that the States' compliance with the federal law would directly impair their ability "to structure integral operations in areas of traditional functions."

452 U.S. at 287-288.

The power to tax generally is clearly an activity of the States as States, one of the "traditional governmental functions" which the Tenth Amendment protects against Congressional commerce power intrusions. As one recent commentator put it:

> [S]ince the economic viability of state government depends upon the power to tax, and because the taxing power is a legitimate function of the state as sovereign, state taxation should clearly qualify as a "traditional governmental function.

Parnell, Constitutional Considerations of Federal Control over the Sovereign Taxing Authority of the States, 28 CATH.U.L.REV. 227, 238 (1979).

This is not to say, of course, that a State tax

affecting interstate commerce is immune from Commerce Clause related limitations. Even in the absence of a Congressional statute, a State tax may be evaluated constitutionally to determine whether it "is applied to an activity with a substantial nexus with the taxing State, is fairly apportioned, does not discriminate against interstate commerce, and is fairly related to services provided by the State." Complete Auto Transit, Inc. v. Brady, 430 U.S. 274, 279 (1977), quoted in Commonwealth Edison Co. et al. v. Montana, _____ U.S. _____, 101 S.Ct. 2946 (1981).

Nevertheless, State taxation probably does comport with the kind of activity relevant to the National League of Cities line of cases. See generally Light, State Severance Taxes Fuel Court Action and Congressional Debate, 11 PUBLIUS 85, 103-108 (1981). The constitutional issue then becomes whether compliance by a State with section 114(c) of the Superfund Act would directly impair that State's ability to structure integral operations in areas of traditional functions. The policy issues New Jersey raised to convince the New Jersey tax court that CERCLA section 114(c) should be construed narrowly could be constitutional issues. New Jersey argues:

> It is abundantly clear that the [federal Superfund scheme] will not even begin to cover more than a small fraction of the State's cleanup needs . . . [T]he [New Jersey] Fund has an obligation under State law to remedy problems in New Jersey caused by the discharge of hazardous substances into the environment. Shutting down this remedial capability . . . . simply does not make any sense. Moreover, if the [state] spill tax is preempted from being used to support response actions which in some chimerical sense are "eligible" for

> compensation under the Federal Act but not realistically in line for Federal dollars, New Jersey could be prevented from financing hazardous substance cleanups of local, but not national priority, out of the source declared by the State legislature to be the most equitable . . .

Exxon et al. v. Hunt, No. SC 303A-81, Brief in Support of State Defendants' Motion for Summary Judgment, supra, at 26-27, HAZARDOUS WASTE LITIGATION REP. at 1618-1619 (Nov. 17, 1981). These complaints could rise to constitutional dimensions if a court holds that Congress actually intended to broadly preempt State taxation in Superfund section 114(c).

The practical importance of the tax preemption matter has become evident as the outlines of EPA's prospective cleanup program have developed over the past several months and as those outlines' implications for individual State cleanup efforts have become clear. Minnesota recently summarized that state's practical problem with the federal program for the Superfund 301(e) Study Group:

> The Minnesota Pollution Control Agency has listed 49 hazardous waste sites in Minnesota in need of clean up and emphasized that the list is growing. Five of these sites were included in the Environmental Protection Agency's initial list under § 105(8)(B) of the Superfund Act of the 115 highest priority hazardous waste sites. Based upon MPCA-EPA discussions and recently published EPA projections, it appears unlikely that more than 10% of Minnesota's currently identified hazardous waste sites will be cleaned up under the federal Superfund program through 1988.
>
> The EPA projections are found in a "[S]uperfund program evaluation and tracking system" report submitted to EPA Administrator Anne M. Gorsuch in December, 1981, by EPA's Office of Management Systems and Evaluation. 13 Env't Rep. (BNA) 1211 (January 22, 1982). As reported by BNA, the EPA evaluation document envisions that Superfund will provide clean up of less than 330 sites by the end of federal fiscal year 1987 (or less than 15% of the sites EPA recognizes as

needing cleanup). The significance of the 330 sites estimate is drawn into question by an accompanying budget breakdown which shows that by the end of fiscal 1987 only 170 remedial actions will have been implemented at a total cost of $765 million. The difference between 330 sites and 170 remedial actions may reflect spill situations in which "immediate removals" will accomplish clean up, and no "remedial action" will be required. If the 170 inactive hazardous waste sites to undergo remedial action are evenly distributed among the states, Minnesota might have 3 or 4 of its approximately 50 inactive sites cleaned up by Superfund. The Minnesota Pollution Control Agency, which works closely with EPA on Superfund matters, believes clean up of 1 to 3 Minnesota sites is likely from Superfund.

Achievement of even these modest estimates will require an increase in the present pace of EPA Superfund activity. The evaluation report cited above shows that 7 remedial actions are contemplated nationwide for fiscal 1982. Estimates for fiscal 1983 are all remedial actions. Although EPA cautions that low numbers in the early years of the Superfund program reflect the time needed for investigation, planning, and design, it should be noted that many of the sites on the Superfund list were known to or investigated by state environmental agencies prior to passage of the Superfund Act. Much more could have been accomplished to date by more vigorous implementation of the National Contingency Plan and other elements of the Superfund Act. The increased pace of remedial action projected in the EPA evaluation document would be welcomed by the states but would still leave close to 90% of the inactive hazardous waste sites in Minnesota and throughout the nation in need of clean up.

Memorandum from Steve Shakman to Eldon G. Kaul, State of Minnesota Attorney General's Office, Apr. 17, 1982 (footnotes omitted).

The New Jersey Superfund tax preemption controversy is only one symptom of the manifold intergovernmental difficulties that have been developing because of the federal Superfund Act. New Jersey's, Minnesota's, and other States' difficulties would be lessened as a practical policy, if not a legal, matter if the federal government's Superfund program actually was working

to clean up abandoned hazardous waste dumps. Recent testimony before Congressional oversight committees and the experiences of the State administrators and executives coping with this problem have caused us to conclude, as the Minnesota attorney general has, that the federal Superfund program is not working. Disbursements from the Fund have been slow and subject to the same sort of political manuevering which categorized numerous other national programs in the sixties and seventies in which national administrators controlled the fund allocation process. See generally Wright, UNDERSTANDING INTERGOVERNMENTAL RELATIONS 43-78 (2d ed. 1982).

The wisdom of federal preemption in the financing of hazardous waste dump cleanups certainly is questionable in light of the experience of the last 15 months. It is wise that the Superfund 301(e) Study Group, as a result, has been examining modifications of the national Superfund approach in connection with its recommendations for an administrative system to compensate the victims of hazardous waste exposures.

Interestingly, the federal Superfund Act's intergovernmental aspects were a very controversial aspect of the debate over that Act in the House of Representatives during 1980. Congressman Stockman led the critics of this aspect of the legislation:

> We have an open-ended enabling state that makes EPA the czar, and I say this without hyperbole--makes EPA literally the czar over every hazardous waste site in the entire country, and that includes every landfill, every waste site, every junkyard, every leaching pit, every industrial lagoon on the back of an industrial

> property, every municipal dump, even every backyard rubbish pile that has been accummulated anywhere in the country . . . the EPA has plenary power, and there is absolutely no guidance as to where all these costly activities to clean up hazardous waste will be triggered.

46 Cong. Rec. H9439 (Sept. 23, 1980) (remarks of Congressman Stockman).

The House bill upon which Congressman Stockman was commenting (H.R. 7020) is similar in most aspects of its intergovernmental operation to the Act which passed. Essentially, that Act authorizes the President to undertake any "response measure consistent with the national contingency plan [which he] deems necessary to protect the public health or welfare or the environment." 42 U.S.C. § 9604(a)(1). However, it requires that the President consult with the State before taking action and obtain a State commitment for future maintenance of the remedial measures, a State assurance of the availability of a hazardous waste disposal facility if needed for the cleanup, and a State payment of ten percent of the cost of remedial action. 42 U.S.C. § 9604(c). The State role is that of order-taker, not that of a partner.

Congressman Stockman's proposed alternative to the broad delegation of authority to EPA evident in the Superfund proposals was a grant program for the states to provide money to clean up inactive waste sites, distributed mainly on the basis of a formula tied to population and industrial production. Congressman Florio, in defense of his H.R. 7020 and in opposition to Stockman's alternative, stated:

> EPA, under this proposal, would provide formula grants to states with approved plans, after we went through all of the time necessary to get those plans formed. . . . The arguments against the substitute are fairly obvious: Time and delay. Time is of the essence in many of these instances. The need is right now. I can point to some 397 sites . . . EPA is already involved and has identified some 397 specific sites that they are at work on. So we do not have the time to develop these programs . . . Many states, quite frankly, are not interested and are not capable of going forward and they do not want to. They want to defer to the Federal Government. . . .

When the Senate compromise S. 1480 reached the House in December, Congressman Dannemeyer briefly referred in floor debate to the defeated Stockman proposal:

> If there were no other way to attack the hazardous waste problem except through EPA, perhaps a case could still be made for this bill. After all, no one is arguing that the waste sites should not be cleaned up. But, to assume that only EPA can do the job, or do it best and quickest as this bill assumes, flies in the face of historical experience. Since when did a Federal regulatory agency ever move quickly on a problem, to wit RCRA, or solve it efficaciously, to wit--air and water pollution?. . . [I]t may be that state government would be able to handle the problem, which suggests that the block grant to states approach, as suggested by our distinguished colleague from Michigan (Mr. Stockman) would be preferable to this means.

Congressman Rudd also praised the Stockman alternative:

> A commendable alternative approach offered by the gentlemen from Michigan (Mr. Stockman) . . . would have provided a block grant to the states. By this method, the states would be able to set up procedures to deal with the hazardous waste sites within their individual borders according to the priorities they determine. . . .Rather, this bill will perpetuate a Washington based "solution" administered through the Environmental Protection Agency . . .

In light of the States' experience with the practical operation (or, more accurately, general paralysis) over the

past 15 months, Congressman Stockman's block grant alternative to the Superfund intergovernmental aspects seems all the more worthy of investigation. Congressman Stockman's prophecy about delay in the Superfund allocation process has proved accurate. Congressman Florio's hope about getting on with the cleanup has been in vain.

Senators Stafford's and Randolph's concerns about federal preemption of State law in environmental protection are well-taken in this sense even if their specific concern with the Milwaukee and National Sea Clammers cases are less so. Perhaps these Senators might consider proposing a revision of the Superfund scheme toward the block grant or some other alternative approach to make disbursements from the "Superfund" in order to alleviate the paralysis presently existing in this preemptive national program. This might well coincide with the President's "new federalism" philosophy. Alternatively or in addition, the Congress could amend the Act to clarify Congressional intent with respect to preemption of State Superfunds.

This is not to say, of course, that Congressional power to induce the States indirectly to undertake an important activity of national priority such as hazardous waste cleanup is completely unlimited. Courts do not lightly infer a Congressional imposition "of binding obligations on the States" where simple "Congressional 'encouragement' of state programs" is likewise inferable. Pennhurst State School & Hospital v.

Halderman, 451 U.S. 1, 27 (1980). And, even the clear imposition as grant conditions of the adoption of a State law or the taking of any other action within a State's prerogatives would not necessarily provide any private party with a federal cause of action were the State then not to comply with an accepted grant condition:

> In legislation enacted pursuant to the spending power, the typical remedy for state noncompliance with federally imposed conditions is not a private cause of action for noncompliance but rather action by the Federal Government to terminate funds to the state.

451 U.S. at 28.

One recent law review note states:

> Only a requirement that states make all decisions on matters falling within exclusive state powers free from all influence of national grants provides a workable standard for preserving the values of Federalism.

Note, Taking Federalism Seriously: Limiting State Acceptance of National Grants, 90 YALE L.J. 1694, 1712 (1981).

While the Supreme Court has not yet adopted this constitutional requirement of "uninfluenced decisionmaking" for national grant programs, the trend may be in this direction. See Stewart, Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy, 86 YALE L.J. 1196, 1261-1262 (1977); Comment, Toward New Safeguards on Conditional Spending: Implications of National League of Cities v. Usery, 26 AM.U.L.REV. 726, 744-46 (1977; but see Comment, Federal Interference with Checks and Balances in State Government: A Constitutional Limit on the Spending Power, 128 U.PA.L.REV. 402, 417 (1979).

Nevertheless, a grants or other "incentives" approach to recruiting the States into a hazardous waste cleanup effort clearly is more likely to withstand constitutional scrutiny than the direct coercion/preemption approach. If State tax sources and by implication State waste cleanup programs have been preempted by section 114(c), the practical import may be that nothing will be done in the near future to clean up abandoned hazardous waste sites except for those cleanups undertaken with private financing. The Study Group may wish to bring this problem to the attention of Congress in its report.

Attachment E

Appendix F

Private Remedies for Violations of Anti-Pollution Statutes: Implied Right of Action and Negligence *per se*

I. Introduction

The primary purpose of the recent growth of federal and state environmental pollution laws has been to prevent pollution by public regulation rather than provide damages to persons injured. The compensation of victims of environmental pollution has been incidental to the accomplishment of the primary purpose.

In actions for personal injuries, courts may treat violations of legislative enactments either by implying a private right of action from them, or they may regard the violations as evidence of a breach of a duty of care. The courts, however, have rarely used these doctrines to award compensation to persons injured by environmental pollutants as a result of violations of environmental statutes.

What follows is a discussion of the doctrines of implied rights of action and negligence *per se* as applicable to the violation of anti-pollution statutes.

II. Implying Rights of Action for Statutory Violations: Federal Statutes

An early case in which the right to a private remedy was implied from a federal regulatory statute is *Texas & Pacific Ry. Co. v. Rigsby*.[1] In *Rigsby*, plaintiff switchman

whether the cause of action is one relegated to state law.[6] The court found none of these factors satisfied by the facts of the case. As a consequence, it ruled that the plaintiff was not entitled to sue under the statute.

The Cort analysis has been sharply attacked. Chief among the criticisms is that the analysis is at odds with the doctrine of separation of powers. The criticism rests on the notion that, under Article III of the Constitution, only Congress has authority to define the jurisdiction of federal courts. In a strongly worded dissent in Cannon v. University of Chicago,[7] for example, Justice Powell argued that to the extent the Cort analysis "permits federal courts to "legislate causes of actions not authorized by Congress," it represents an unconstitutional extension of judicial power.[8]

Subsequent Supreme Court cases have narrowed the application of Cort's four factor test and have declined to give equal weight to each of the four factors.

In California v. Sierra Club[9] an environmental organization and two private citizens sought to enjoin the construction and operation of certain water diversion facilities in California which would would allegedly degrade water quality in the Sacramento-San Joaquin Delta, in violation of §310 of the Rivers and Harbors Appropriations Act of 1899.[10] Section 310 prohibits "[t]he creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of

termed the enactment the "kind of general ban which carries with it no implication of an intent to confer rights upon a particular class of persons."[14]

This rationale, however, is at odds with the principle that interests can be protected even if they are so widely shared that each individual's interest is quite small. Although little case law has developed yet to apply this principle in environmental cases, the United States Supreme Court has recognized already that in determining whether plaintiffs have standing, a widely shared interest is still legally protected.[15]

The notion that no one has an interest if everyone has that interest is no longer tenable under a principle which recognizes "minimal" interests as legally protected.

Nevertheless, private remedies are unlikely to be implied from comprehensive federal environmental statutes. In Middlesex Cty. Sewage Authority v. National Sea Clammers,[16] the Supreme Court held that the plaintiffs were not entitled to a private remedy under the Federal Water Pollution Control Act [hereinafter FWPCA] and the Marine Protection Research and Sanctuaries Act of 1972. [hereinafter MPRSA].

Plaintiffs contended that defendants Environmental Protection Agency and the Army Corps of Engineers permitted other defendants to discharge pollutants in amounts not sanctioned by the Acts. They contended further that certain defendants contravened the terms of their permits.

for citizen suits.[24] Under the rationale of the Middlesex Court, plaintiffs seeking private relief for the violation of Federal environmental statutes are not likely to prevail on an implied cause of action theory.

Under Middlesex and Milwaukee v. Illinois and Michigan (Milwaukee II)[25] no federal common law of nuisance action exists when Congress has enacted a comprehensive environmental program. In Illinois v. City of Milwaukee (Milwaukee I)[26] the plaintiff, the state of Illinois, filed a motion for leave to file a bill of complaint against four Wisconsin cities and two sewage commissions. It alleged that defendants polluted Lake Michigan with raw or inadequately treated sewage. Illinois requested the Court to abate the discharges as a public nuisance.

The Court noted that the remedy sought by Illinois had not been made available by any federal legislation. It stated, however, hat statutory remedies are not the only federal remedies available and that it 'is not uncommon for federal courts to fashion federal law where federal rights are concerned.'[27] "When we deal with air and water pollution and their ambient or interstate aspects, there is federal common law...."[28]

Although the Court recognized the existence of the remedy which Illinois sought, it refused to exercise original jurisdiction over the action. Instead, it exercised its discretion to remit the case to an appropriate district court.[29]

In Milwaukee II, the Court greatly circumscribed the reach of federal common law of nuisance. It determined that federal

However, in deciding whether to imply a private remedy for the violation of legislative enactments, both state and federal courts initially seek to ascertain legislative intent.[32] If a court determines that the legislature intended either to provide or not provide a private remedy, the inquiry is ended. However, a state court generally will take a more liberal approach than the federal courts. If no specific legislative intent is discerned, the court usually examines the policy underlying the statute or the legislature's purpose in enacting it--factors closely related to the legislative intent. The court will permit a private right of action based upon the statute if it determines that doing so best promotes the enactment's purpose or policy.[33]

According to the American Law Institute, in order to prevail in an action based upon a state enactment, the plaintiff must demonstrate that "he [is] within the group of persons for whose benefit the legislation was adopted and, ... that the interests invaded, the harm resulting to that interest and the hazard producing the harm are all within the purview of the legislative provision."[34]

For example, in Sherman v. Field Clinic,[35] plaintiffs' family members sought damages for attempts made by defendant collection agency to collect a debt purportedly owed by a plaintiff. The agency employed harassing techniques in its collection attempts which included: phoning plaintiffs'

may interpret it as establishing a standard of conduct the deviation from which bears upon the issue of negligence.

As with implying civil remedies from legislative enactments, the court principally focuses on legislative intent to determine whether to adopt a statutory standard of conduct in a negligence suit.[40] Thus, where legislative intent to provide or not provide a civil remedy is clear, the inquiry need proceed no further. Where such intent is not apparent, the statutory standard will be adopted when the enactment is construed as intended to protect the particular class of persons to which the plaintiff belongs;[41] the statute's violation causes an invasion of the interest(s) the enactment is intended to protect;[42] and when the harm caused by the violation is the type against which the statute is intended to guard, or results from exposure to the particular hazard that the legislature intended to prevent.[43]

Most courts which utilize the statutory standard in nelgigence suits hold that an unexcused violation of it is dispositive on the issue of negligence -- negligence per se. Those courts directly adopt the legislatively established standard of conduct and permit the jury no opportunity to modify it. The only task remaining for the fact finder is to rule on the causal connection between the violation and the plaintiff's injury as well as upon the applicability of the traditional defenses of assumption of risk and contributory negligence.[44]

> "First, the court [in Orthopedic] recognized that no cause of action was created by the federal statute. Second, the court ruled that the statute established the standard of care which rests upon manufacturers of drugs. Finally, the court held that the effect of a violation of that standard was to be determined by state law."[48]

V. Conclusion

If explicit federal statutory provisions for private relief are not enacted, injured persons are likely to continue to find statutory remedies unavailable. Federal citizen suit provisions allow members of the public to assert public rights and to seek injunctions against proscribed polluting activities. However, citizen suit provisions do not provide causes of action for private damages.

Plaintiffs must rely primarily on state common law remedies for private causes of action. State statutes might be used to imply a private cause of action, or statute, state or federal, might also be used as a basis for a negligence per se claim. However, both of these -- implied cause of action and negligence per se -- have not yet been widely adopted in cases involving environmental statutes.

regulatory authorities by §17(a) of the Securities and Exchange Act of 1934, 15 U.S.C. §78(9)(a)(1976), have an implied cause of action against accountants who audit such reports based on misstatements contained [therein]." 442 U.S. at 562. In denying no private remedy the Court noted the "stricter standard for the application of private causes of action" adhered to since Cort. "The ultimate issue is one of Congressional intent...." Id. at 578.

14. Id. at 294.

15. United States v. Students Challenging Regulatory Agency Procedures ("the fact that all those who use those resources suffered the same harm" did not deprive plaintiffs of standing), 412 U.S. 669 (1973); Sierra Club v. Morton, 405 U.S. 727 (1972).

16. 453 U.S. 1 (1981).

17. 33 U.S.C. 1319(a)(1)(1976).

18. Id. §1319(d)[civil penalty], (c)[criminal penalty].

19. Id. §1342(b)(7).

20. Id. §1369(b).

21. Id. §1365(a)(1). Such citizen suit provisions may not be used, however, to assert private claims for damages; they are limited to vindicating the public interest. GRAD, TREATISE ON ENVIRONMENTAL LAW, §3.03[10][b], text accompanying n. 30.3.

22. 453 U.S. at 13-14. (The Court stated that most of FWPCA's enforcement mechanism have their counterpart under MPRSA).

23. Id. at 18, quoting opinion in Transamerica Mortgage Advisors, Inv. v. Lewis, 444 U.S. 11, 19 (1976). Although not suggested by the parties, the Court discussed a possible alternative to express authorization of private suits under congressional enactments, namely §1 of the Civil Rights Act of 1871, 33 U.S.C. §1983 (1976). Section 1 authorizes private suits to redress violations by government officials of rights created by federal statutes. It provides that

> [e]very citizen, who under color of any statute... of any state...causes any citizen of the United States or any person within the jurisdiction thereof the deprivation of any rights...secured by the Constitution and laws, shall be liable to the party injured in an action of law."

State court inquiry primarily is focused on state legislative intent. In this respect, State courts' reasoning is quite similar to that evident in the Milwaukee and National Sea Clammers cases. State statutes which provide for a specific matter already covered by a common law rule but omit a portion of that rule can be interpreted to indicate a legislative intent to repeal those portions omitted. 73 Am.Jur. 2d Statutes §185 (1974). However, if a statute does not address a common law rule in its entirely and merely touches upon portions of the rule, the remaining portions not considered are not repealed or abrogated. See Fabricius v. Montgomery Elevator Co., 254 Iowa 1319, 121 N.W.2d 361 (1963); Pennsylvania Mutual Life Insurance Co. v. Hunt, 237 Mass. 241, 129 N.E. 391 (1921); Tucson Gas & Electric v. Schantz, 5 Ariz. App. 511, 428 P.2d 686 (1967); State v. Barne 133 Neb. 676, 276 N.W. 676 (1937). A legislature may abrogate or change common law by statute without providing an adequate substitute. Magierowski v. Buckley 39 N.J. Super. 534, 121 A.2d 749 (1956).
Sands has summarized the principles courts use in deciding the common law displacement issue:

> [A statutory interpretation is favored which] preserves the rights or benefits enjoyed under the common law where the result avoids absurdity, retroactivity, unconstitutionality, is in keeping with good policy, is consistent with what is otherwise indicated to be the purpose of the legislation, or is evident from a consideration of the statute read as a whole and in conjunction with other related statutes.

3 SUTHERLAND STATUTORY CONSTRUCTION §61.02 (Sands, 4th ed., (1972).

In recent times, there has been a tendency to construe remedial State statutes less strictly and thus to find that State statutes indicate a change in the policy of the law in derogation of the prior common law. 3 SUTHERLAND STATUTORY CONSTRUCTION §61.03. Many states have adopted laws that seek to change courts' strict interpretations of statutes which displace the common law, but these laws generally are meant simply to eliminate bias toward either a liberal or strict construction. 3 SUTHERLAND STATUTORY CONSTRUCTION §61.05.

42. Restatement (Second) of Torts §286(b). See, e.g., Illustration 9 at 28. ("A Factory Act requires persons operating or leasing buildings for factory purposes to keep the building in safe repair. A leases his factory to B. A fails to repair the roof. In consequence it falls, injuring C, one of B's employees. The fall of the roof causes the factory to close for a month, thus depriving D, another employee of B, of his employment. The statute establishes a standard of conduct as to C's injuries, but not as to D's loss of employment.")

43. Restatement (Second) of Torts §286(c), (d). See, e.g., Memorial Park, Inc. v. Spinelli, 342 So.2d 829 (Fla. 1977)(wrongful death action for the death of a motorcyclist in a collision with an automobile existing defendant's private driveway. Decedent's administratrix alleged that defendant was negligent in erecting a commercial sign which obstructed the line of vision between the two drivers. Suit was based upon Fla. Stat. Ann. §316.135(2) stated tha- "[n]o person shall place or maintain nor shall any public authority permit upon highway any traffic sign or signal having thereon any commercial advertising...." The court did not permit the action to be based upon the statute. It deemed the provision intended to prevent the placing of commercial signs upon official signs and the resulting diverting of attention away from the latter. In Contrast, decedent's death stemmed from visual obstruction; a harm against which the statute was not intended to protect.)

44. PROSSER, supra, note 17 at 201. (Prosser also suggests that there are "statutes, such as child labor laws, so clearly intended to protect a particular class of persons against their own inability to protect themselves, that the policy of the legislature is interpreted to mean that [the defenses of contributory negligence and assumption of risk] are not available.")

45. Id.

46. 276 F.2d 455 (4th Cir. 1960). See also Freeman v. Olin Corp., CV 80-M-5057 (N.D. Ala., Aug. 14, 1981)(Alabama Pesticide Act establishes a standard of conduct on which plaintiffs could base a negligence per se claim); cf. Silkwood v. Kerr-McGee Corp., 485 F. Supp. 566 (W.D. Okla. 1979). The issue was whether compliance with a federal standard precluded an action under state common law strict liability principles. The court, discussing that issue, noted: "the correlative rule is also applied that violation of a safety regulation constitutes conclusive proof of negligence per se." Id. at 579, citing Orthopedic.

47. 329 F. Supp. 193 (M.D. Pa. 1971).

48. Id. at 195.

Attachment F

POSSIBLE AMENDMENT ALLOWING
DAMAGE SUITS FOR VIOLATION
OF FEDERAL NPDES PERMITS

Section 511 of the Clean Water Act shall be amended by adding a new subsection (e):

(e) Nothing in this Act shall affect or modify in any way the liabilities of any person under other Federal or State law, including common law, for damages caused by noncompliance with any effluent standard or limitation set forth in a permit secured under this Act; provided, however, that any punitive or exemplary damage award made as punishment or deterrence for practices or acts subject to civil or criminal sanctions under this Act is prohibited.

SUGGESTED REPORT LANGUAGE

The purpose of this amendment is to make it clear that the Clean Water Act does not displace, preempt, expand, enhance, or in any way disturb the Federal or State law to award damages under other statutes or under the common law except for damage awards which essentially duplicate civil or criminal sanctions contemplated by this Act.

In the City of Milwaukee against Illinois, the Supreme Court held that in the absence of express language preserving the Federal common law, the statute displaced it. Subsection (e) preserves the rights and remedies available under other federal and state law, including common law. Some have feared that the Milwaukee decision might be construed to preempt State law regarding damages awards as well as Federal common law. While we realize that Federal common law is a doctrine which is by definition within the exclusive control of the federal courts, and in particular the United States Supreme Court, it is not our intent as we amend this Act that it be construed to eliminate damage remedies available under other law. This would be especially true for State common law which, in contrast to any so-called Federal common law, has painstakingly developed over centuries of decisions.

However, it is not our intention that this Act imply, induce or encourage additional remedies under other Federal or

State law. For example, the liability standard under section 311 may not be used by courts whether federal or state, as a standard of negligence. Since the standard of care under section 311 may be more stringent that that under common law, an automatic or per se finding of negligence on the basis of that relatively stringent standard of care under section 311 is particularly inappropriate. Similarly, neither federal nor state courts may use mere violation of a water quality or any other regulatory standard or requirement established pursuant to this Act as the basis for liability under other law.

Also, to the extent Federal or State law permits non-compensatory damage awards, that is awards not to compensate the victim for his injuries or actual damages or to abate a nuisance but rather to punish or to deter the defendant, such awards are preempted and precluded. Federal and state authorities (and to an expressly limited extent citizens under section 505) have responsibility for enforcement, deterrence and punishment. Vigilantes have no place when the sheriff takes over. Cf. Silkwood v. Kerr-McGee Corp., 667 F. 2d 908, 922-923 (10th Cir. 1982); UNC Resources, Inc. v. Benally, C.A. No. 80-750B (D.N.M. Oct. 8, 1982).

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FILE NO.

DIRECT DIAL NO. 804 788-

April 15, 1983

Dear Senator Stafford:

Although my oral remarks and prepared statement generally address the questions raised in your mailgram of March 31, 1983 concerning the U.S. Supreme Court's decision in Milwaukee v. Illinois, 451 U.S. 304 (1981) ("Milwaukee II"), I thought it might be helpful to you and other members on the Committee to supplement that testimony by specific responses to each of your questions. By copy of this letter to Senator Chafee, I respectfully request that it be included in the record along with my prepared testimony.

1. The wisdom of the Milwaukee decision based on the facts in that case.

As stated in my prepared statement, I believe the case was correctly decided and that the principles of federalism (in that case recognition that the Federal government's powers are only those expressly delegated to it in the Constitution or arising from necessary implication from the formation of the

Union) and judicial restraint (once Congress has fashioned a statutory remedy, federal courts are normally to treat it as the exclusive remedy and are not to supplement it through judge-made rules) which underlie it are fundamentally sound. I am persuaded by the Supreme Court's reasoning in Milwaukee II especially with respect to the specific equities involved in the Milwaukee fact situation:

> It is also significant that Congress addressed in the 1972 Amendments one of the major concerns underlying the recognition of federal common law in Illinois v. Milwaukee. We were concerned in that case that Illinois did not have any forum in which to protect its interests unless federal common law were created. See 406 U.S., at 104, 107. In the 1972 Amendments Congress provided ample opportunity for a State affected by decisions of a neighboring State's permit-granting agency to seek redress. Under § 402(b)(3), 33 U.S.C. § 1342(b)(3), a state permit-granting agency must ensure that any State whose waters may be affected by the issuance of a permit receives notice of the permit application and the opportunity to participate in a public hearing. Wisconsin law accordingly guarantees such notice and hearing, see Wis.Stat.Ann. §§ 147.11, 147.13 (West. Supp. 1980-1981). Respondents received notice of each of the permits involved here, and public hearings were held, but they did not participate in them in any way. Section 402(b)(5), 33 U.S.C. § 1342(b)(5), provides that state permit-granting agencies must ensure that affected States have an opportunity to submit written recommendations concerning the permit applications to the issuing State and the EPA, and both the affected State and the EPA must receive notice and a statement of reasons if any part of the recommendations of

> the affected State are not accepted. Again respondents did not avail themselves of this statutory opportunity. Under § 402(d)(2)(A), 33 U.S.C. § 1342(d)(2)(A) (1976 ed., Supp. III), the EPA may veto any permit issued by a State when waters of another State may be affected. Respondents did not request such action. Under § 402(d)(4) of the Act, 33 U.S.C. § 1342(d)(4) (1976 ed., Supp. III), added in 1977, the EPA itself may issue permits if a stalemate between an issuing and objecting State develops. The basic grievance of respondents is that the permits issued to petitioners pursuant to the Act do not impose stringent enough controls on petitioners' discharges. The statutory scheme established by Congress provides a forum for the pursuit of such claims before expert agencies by means of the permit-granting process. It would be quite inconsistent with this scheme if federal courts were in effect to "write their own ticket" under the guise of federal common law after permits have already been issued and permittees have been planning and operating in reliance of them.

City of Milwaukee v. Illinois, 451 U.S. 304, 325-326 (1981). (emphasis added)

The Court's opinion highlights the general thoroughness with which Congress crafted the Clean Water Act. That opinion also emphasizes that in the specific factual case before it, the State of Illinois, either through design or procrastination, failed to avail itself in a timely fashion of the specific administrative and judicial remedies afforded by that Act. The Court saw no constitutional need to relieve Illinois from the consequences of its own failure to pursue them. Likewise, Congress has no sound policy reason for rewarding

laggards. To the contrary, the need for expedition, certainty and repose is well recognized in the law. Indeed it is fundamental to such concepts as laches in equity and statutes of limitations in the courts of law and the doctrine of exhaustion of administrative remedies in both law and equity.

The need for expedition, certainty and repose is also recognized in key provision of the Clean Water Act such as Section 509(b)(1), 33 U.S.C. § 1369(b)(1), which provides that a number of specifically enumerated actions of the EPA Administrator must be appealed to the appropriate United States Court of Appeals "within ninety days from the date of such determination, approval, promulgation, issuance or denial, or after such date only if such application is based solely on grounds which arose after such ninetieth day." The principle is repeated in Section 509(b)(2), 33 U.S.C. § 1369(b)(2), which reiterates that no collateral attack may be made on any such action of the Administrator in any civil or criminal proceeding for enforcement.

The reason for these statutory "timely appeal" or "perish" ("90 day cutoff") provisions is obvious from a look at the overall scheme of the Act:

(1) EPA is to issue nationwide technology based effluent limitation regulations for both new and existing plants.

(2) These EPA regulations are to be issued by specified statutory deadlines.

(3) A "one-shot," timely appeal of EPA's regulations can be taken within 90 days after their issuance.

(4) When these regulations become final, permits are to be issued containing plant specific effluent limitations meeting the more stringent of (a) those EPA technology-based standards or (b) state water quality based standards or other stricter State set standards. The Act, as now definitively interpreted by the Court, provides for limited plant specific variations from EPA's general technology based standards and State water quality standards. Some variations may result in less stringent limitations and some variances may specify more stringent limitations. Compare Sections 307(b)(1) and 316(a) with Sections 307(b)(4) and 510 and see, e.g. EPA v. National Crushed Stone Ass'n, 449 U.S. 64 (1980). But is is clear these exemptions must be sought exclusively in the permit process through the prescribed statutory procedures.

(5) Again, timely (within 90 days) appeal is required where EPA issues the permit (appeal is governed by state law where a state had been delegated permitting authority).

The above process is entirely consistent with the Act's requirement in Section 301 that to be lawful all discharges of pollutants into the nation's waters must be authorized by permit issued through this scheme. Thus the overall permit process was designed to assure "meaningful nationwide uniformity" and "reasonable further progress" toward attainment of nationwide clean-up goals by specified dates. And those target dates were predicated upon the need for all involved in the process (EPA, the States, permit applicants and other affected members of the general public) being given <u>one</u> fair chance to test applicable generic standards and specific permit limitations <u>but no more</u>, absent new facts coming to light that can be brought to the attention of EPA or the State permit issuing authority, as appropriate, through the administrative procedures specified in the Act. Court after court has recognized this as the grand scheme of the Act, though one justice has voiced questions as to the

Constitutionality of the 90 day deadline when subsequently applied in a criminal prosecution. Adamo Wrecking Co. v. United States 434 U.S. 275, 290-291 (1978) (Powell, Jr., concurring).

If Congress were to maintain the 90 day deadline for industry appeal of EPA's generic rules and retain the express collateral attack ban on permitholders in enforcement actions, but at the same time were to amend the Act to permit States and downstream water users to second guess EPA rules or EPA issued permits after expiration of the 90 days, such an amendment would undermine two basic concepts in the Act: (1) nationwide, uniform technology based standards and (2) statutory "attainment" deadlines. Such an amendment would also be gross discrimination and might be unconstitutional since it would amount to unequal protection of the laws. Even if any such amendment would authorize plaintiffs to seek damages under "federal common law" only where a defendant was in violation of his permit, this would make a decided shift away from the present Act's principal reliance on administrative rather than litigation remedies.

2. Whether the Clean Water Act and other federal statutes are sufficiently comprehensive to justify supplantation of federal common law.

In Milwaukee II the Court stated:

> Congress has not left the formulation of appropriate federal standards to the courts through application of often vague and indeterminant nuisance concepts and maxims of equity jurisprudence, but rather has occupied the field through the establishment of a comprehensive regulatory program supervised by an expert administrative agency.

451 U.S. at 317 (1981).

I agree with this statement. These EPA regulations should not be subject to second-guessing by the courts except to the extent those standards may be challenged through judicial review after their promulgation. The present Act provides for nationwide technology based standards to be set by EPA for categories of point sources, distinguishing between existing and new sources. These standards are embodied in EPA's effluent limitation regulations for existing plants and EPA's new source performance standards for new plants. The Act requires that any such appeal be taken within 90 days after they are promulgated. Thereafter the only forum in which to callenge what one believes from hindsight to be inappropriate EPA regulation is EPA, and the normal mechanism is a petition for rulemaking. As noted in my prepared testimony, persons may evoke the aid of that agency through other procedures in emergency situations. But in either event that agency must be the starting point for resolution of these problems. Courts are ill-equipped to handle highly technical factual issues without

a record put together by aid of an expert administrative agency. In this regard, the Supreme Court in its landmark duPont decision under this Act observed that:

> Moreover, it would be highly anomalous if the 1983 regulations and the new-source standards were directly reviewable in the Court of Appeals, while the 1977 regulations based on the same administrative record were reviewable only in the District Court. The magnitude and highly technical character of the administrative record involved with these regulations makes it almost inconceivable that Congress would have required duplicate review in the first instance by different courts.

E.I. duPont de Nemours v. Train, 430 U.S. 112, 127-28 (1977).

Even a Courts of Appeals judicial review of an agency's factual conclusions should be limited to an inquiry into whether there is substantial support in the record, viewed as a whole, for the asserted or necessary factual basis of those conclusions. This is the standard that most appellate courts now apply under the "arbitrary and capricious" standard under the Administrative Procedure Act. 5 U.S.C. § 706. However, in making determinations on questions of law, I would recommend that there should be no presumption in favor of or against an agency's interpretation, as has been proposed in the Bumpers amendment. See S.Rep. No. 97-284, 97th Cong., 1st Sess. 164 (1981) (regulatory reform act S.1080).

The principle articulated in Milwaukee II by the Supreme Court does and should apply to areas covered by other comprehensive Federal environmental statutes, such as the Clean Air Act, the Resource Conservation and Recovery Act and the Superfund Act. The lower federal courts have begun to apply Milwaukee II's rationale to these other areas already, as I pointed out in my prepared statement, and in the cases I cite in my answer three, below.

This does not mean, of course, that where a permit issued under a federal statute inadvertently does not address a particular pollutant or permits a level of pollution which is later found to pose a substantial threat to public health that there is no remedy. First, EPA has authority under provisions of the environmental statutes to seek an injunction in such extraordinary situations, see e.g., CWA § 504, 33 U.S.C. § 1364; CAA § 303, 42 U.S.C. § 7603; RCRA § 7003, 42 U.S.C. § 6973. Second, participants in a permit proceeding may petition to reopen a permit where there is a change of condition such as the discovery of a danger previously unknown, see e.g., CWA § 402(b)(1)(C)(iii), 33 U.S.C. § 1342(b)(1)(C)(iii); RCRA § 3005(c), 42 U.S.C. § 6925(c). However, the forum for initially resolving the often highly technical factual questions posed in such a petition is and should be an expert administrative

agency, whether EPA or its State equivalent, not the courts. The courts' role is and should be limited to timely judicial review of the agency's determinations under the "arbitrary and capricious" standard cited above.

3. What statutes have been or might be construed as displacing federal common law under the rationale of the Milwaukee decision?

a. The Marine Protection, Research and Sanctuaries Act. See, Middlesex County Sewerage Authority v. National Sea Clammers Association, 453 U.S. 1 (1981).

b. The Clean Air Act. See, New England Foundation v. Costle, 566 F.2d 30 (2d Cir. 1981); Connecticut v. Long Island Lighting Co., 535 F.Supp. 546 (E.D.N.Y. 1981); United States v. Kin-Buc, Inc., 532 F.Supp. 699 (D.N.J. 1981).

c. The Resource Conservation and Recovery Act and Comprehensive Environmental Response Compensation and Liability Act. See, United States v. Waste Industries, 18 ERC 1521, 1533-34 (E.D.N.C. 1983); City of Philadelphia v. Stepan Chemical Co., 544 F.Supp. 1135 (E.D.Pa. 1982); United States v. Price, 523 F.Supp. 1055, 1069 (D.N.J. 1981), aff'd 688 F.2d 204 (3rd Cir. 1982).

Any other environmental statute which sets out a comprehensive system through which States may participate in rulemakings and adjudications of permits or licenses could also be the subject of application of the Milwaukee II rationale.

The broader principle set forth in the Sea Clammers opinion, i.e., that the federal courts may not infer the existence of a damages remedy for violation of a statute's

provisions in the absence of Congressional creation of an express damages remedy, has been and will be applied in many regulatory contexts, both environmental and nonenvironmental. E.g., California v. Sierra Club, 451 U.S. 287 (1981) (Rivers and Harbors Appropriations Act of 1899); Pennhurst State School and Hospital v. Halderman, 451 U.S. 1 (1981) (Developmentally Disabled Assistance and Bill of Rights Act); Universities Research Association v. Coutu, 450 U.S. 745 (1981) (Davis-Bacon Act); Transamerica Mortgage Advisors (TAMA) v. Lewis, 444 U.S. 1 (1979). The "no implied remedy" cases do not generally involve the hypothetical pre-existence of a federal common law. Rather, they involve the principle of statutory construction affirmed in Sea Clammers: "[I]t is an elementary canon of statutory construction that where a statute expressly provides a particular remedy or remedies, a court must be chary of reading others into it." 453 U.S. at 14-15. See, also, my letter to Frank Grad, Reporter of the Superfund Study Commission, of December 16, 1981 (Attachment A to my prepared testimony).

4. Whether the rationale of Milwaukee justifies supplantation of state common law.

As set forth in my prepared statement in some detail, it is clear that Milwaukee II did not hold that State common

law has been displaced. Nor did Sea Clammers hold that federal law has preempted the awards of damages under State tort or nuisance law, including State common law. On the other hand, State statutes can and often do preempt State common law. This is a matter of construction of State statutes. As to matters of the interpretation of State law, the Federal government is compelled by principles embedded in our federal system to defer to the construction of a State's Supreme Court. E.g., United States v. Thirty-Seven Photographs, 402 U.S. 363, 369 (1971) (denying federal courts authority to construe State legislation); see 96 Harv.L.Rev. at 194 n.45. In my prepared testimony, I pointed out that the other members of the Superfund Study Commission concurred in my conclusion that neither Milwaukee II nor Sea Clammers preempted State common or statutory law. I further stated that if any doubts existed on that score, they could be assuaged by a simple technical amendment.

5. The nature and adequacy of remedies available to litigants after the decision in Milwaukee.

As set forth in my prepared statement, I believe that the Clean Water Act sets forth adequate equitable remedies, both for States and for private parties who act in a timely manner to assert their rights. As to the recovery of damages which are now governed exclusively by State law, while I do not

believe that such remedies are completely adequate in all 50 States, I do not believe that preemption, through creation of a federal cause of action, is the most appropriate solution. For my views regarding the shortcomings of the present State tort law systems in the hazardous wastes context and my preferred remedies to these shortcomings, see my Comments on the Report of the Superfund § 301(e) Study Group. "Superfund § 301(e) Study Group," Senate Committee on Environment and Public Works, 97th Cong., 2d Sess., Injuries and Damages from Hazardous Wastes -- Analysis and Improvement of Legal Remedies 305-348 (Committee Print 1982).

6. Ways in which the Milwaukee decision might be over turned or the federal common law otherwise restored.

While I strongly advise against this course of action, the one way Congress could overturn the Milwaukee II decision and restore the federal common law of Milwaukee I is to repeal the remedies provisions of the Clean Water Act. The "need" which originally justified the creation of a "federal common law" would arise again for the States, but probably not for private parties or for damage awards. Turning to another alternative, as discussed above and in my prepared statement, broadening of the existing Act's savings clauses would merely create confusion and litigation. It probably would not change

the result in Milwaukee II. In my opinion Congress cannot constitutionally order the Supreme Court to create a "federal common law" to fill the vacuum left by a Congress politically unable to formulate a specific statutory remedy.

If Congress wishes to create jurisdiction in the federal courts to award damages under State law in interstate pollution situations, it can enact an express jurisdictional statute analogous to the diversity statute. If Congress is not satisfied with the remedies available under State law, it can enact a federal express private right of action preempting State law. Such a federal cause of action would normally then provide the substantive applicable law in both Federal and State courts. As I indicated in my oral response to Senator Chafee's question at the hearing, I do not believe that such a federal cause of action is needed nor would it be desirable. Under State law, whether or not compensation for damages are appropriate for certain water uses depends not only on the particular State's statutory and common law of tort and nuisance but also upon complex concepts in its water law. As I noted, water rights vary considerably from State to State. This is in large measure because in the Eastern part of our country the water law of the states has evolved from notions of riparian rights in English common law, while the Western states

have have developed prior appropriation concepts reflected in the civil law systems, such as the Napoleonic Code and Spanish law. These varied state laws over the years have been further modified to adjust for the fundamental variations among the States in patterns of rainfall, land use, varying population densities and other factors affecting water uses.

As Clarke observes in his definitive treatise:

> Water law in the West is mainly 'irrigation law,' and rights in water and land are generally separated. In the midwestern and eastern United States 'water rights' are an essential although peripheral part of property law. Because of different climatic, topographical and geographical conditions the two areas have developed different legal doctrine.

Clarke, I Water and Water Rights 29.

The current Clean Water Act accommodates these State differentials through its water quality based provisions and Section 510. Nothing could be more unsettling than trying to override those State law peculiarities as to water use and water rights by trying to have federal judges create a uniform federal law of damages. The enormity of the burden that would ultimately devolve on the Supreme Court can be only guessed at when you consider what the initial round of federal district Court decisions would look like when written by judges generally familiar only with the water, tort and nuisance laws of

their own states and when you recognize the vast differences in substantive law that tradition, nature and population differences reflect in the laws of the States. Having to reconcile fundamentally different concepts derived from the Code Napoleon or the English common law on a case by case basis would be an extraordinarily lengthy, cumbersome and costly process, as I believe Senator Chafee recognized at this hearing. Also since water use law involves questions of the quantity of water as well as its quality, such an amendment might also undermine Section 101(g) of the Clean Water Act.

Sincerely yours,

George C. Freeman, Jr.

The Honorable Robert T. Stafford
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20530

cc: The Honorable John H. Chafee

NATIONAL WILDLIFE FEDERATION
1412 Sixteenth Street, N.W., Washington, D.C. 20036 202—797-6800

STATEMENT OF KENNETH S. KAMLET, ON BEHALF OF THE NATIONAL WILDLIFE FEDERATION, AT HEARING ON DISPLACEMENT OF THE FEDERAL COMMON LAW BY THE CITY OF MILWAUKEE V. ILLINOIS DECISION OF THE SUPREME COURT, BEFORE THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, UNITED STATES SENATE, APRIL 6, 1983

Mr. Chairman and Members of the Committee:

I appreciate the invitation to appear before this Committee on behalf of the National Wildlife Federation and our 4.2 million members and supporters throughout the United States, and on behalf of our 51 state and territorial affiliate organizations. I am Director of NWF's Pollution and Toxic Substances Division as well as the Federation's Legal Affairs Director.

Introduction

The focus of this hearing is a 1981 decision of the U. S. Supreme Court: City of Milwaukee v. Illinois (Illinois II), ___ U. S. ___ , 101 S.Ct. 1784, 68 L.Ed.2d 114. The 1981 decision was the second time this case was addressed by the Supreme Court. A decade-long series of lawsuits was initiated in 1972 when the State of Illinois petitioned the Supreme Court to hear a suit against the City of Milwaukee under the Court's original jurisdiction. Illinois brought the action under a common law nuisance theory, alleging pollution from combined sewer and storm drain overflows during periods of heavy rainfall and from discharges of inadequately treated sewage. No statutory violation was alleged, with the State maintaining that Milwaukee's pollution endangered the health of

Illinois residents.

Although the Supreme Court declined to take original jursidiction (because the action was not between two states), it held that a cause of action could be brought in the lower federal courts. Illinois v. City of Milwaukee (Illinois I), 406 U.S. 91 (1972). And despite the "general rule" that federal courts cannot apply federal common law (established in Erie R. Co. v. Tompkins, 304 U.S. 64 (1938)), the Court held that Illinois I fell within an exception to the Erie doctrine which comes into play where strong federal concerns suggest the need for a uniform federal rule in place of state law. Interstate disputes dealing with air and water in their ambient or interstate aspects, where a fair hearing could not be expected for either state in the other's courts, were found to constitute the requisite overriding federal concern. The Court had earlier found an overriding federal concern to be present where a federal statute occupied the field, but did not specifically provide for the problem at issue. In such cases, where the application of state law might thwart the policies of the federal statute, a federal common law remedy was necessary to preempt state law.

In short, the Supreme Court in Illinois I held that the federal interest in interstate water pollution required a federal common law nuisance action to fill the gaps of the then current Federal Water Pollution Control Act (of 1948).

After the Supreme Court remanded the case to the district court, the 1972 amendments to the FWPCA were passed. Both the district court and the Seventh Circuit Court of Appeals agreed that

the amended Act did not preempt the federal common law of nuisance and directed the defendants to eliminate their raw sewage overflows. The Supreme Court, however, held in Illinois II that the 1972 FWPCA amendments preempted a federal common law suit by Illinois, emphasizing that under the separation of powers doctrine, federal common law is "subject to the paramount authority of Congress," and federal common law must yield when Congress has closed the gaps in the statutory scheme. The Court considered what it termed the "self-consciously comprehensive" nature of the 1972 amendments, and concluded that no room remained for federal common law nuisance.

The Wisdom of the Illinois II Decision

Legal merits aside, one may well question the wisdom of the Illinois II decision under the facts of the case.

As pointed out by Justice Blackmun in his dissenting opinion in Illinois II, the federal common law in that case did not in fact conflict with the FWPCA, as amended, because nothing in the Act spoke explicitly to sewage overflows. 101 S.Ct. at 1810. (This gap in the Act was confirmed by a 1977 amendment which directed EPA to conduct a study on sewer overflows to determine whether new legislation was needed). Moreover, the dissent foresaw a number of "disturbing" effects of the majority's decision:

1) The probability that states would in the future turn to their own law and courts when the federal scheme was thought inadequate to control interstate pollution, thereby destroying the uniform approach to interstate pollution advocated by Illinois I (and which was a fundamental purpose of the FWPCA).

2) The possibility that state law would be inadequate, so that rights granted to states by the Act--for example, the right under § 510(1) to enforce stricter standards--would be effectively denied when the pollution originated out of state.

In addition (although not specifically noted by the dissent):

3) The loss of a federal common law remedy will leave important state and federal interests unprotected. Specifically, the various non-judicial remedies of the FWPCA, cited by the majority as providing an adequate opportunity to protect state interests, are little better than those available in Illinois I and provide only a slim probability of adequate redress of interstate conflicts. (a) Although states affected by pollution have a right to participate in permit proceedings, such proceedings and the decision are controlled by the polluting state which may be indifferent to its neighbor's concerns and more concerned with the severity of restrictions imposed on its own industry and local governments. (b) A major drawback of interstate compacts is the sheer difficulty of negotiating a mutually acceptable agreement and obtaining congressional approval. (c) Although EPA is given the authority under the Act to apply a veto and issue its own permit where a discharge may affect another state, and may enforce standards stricter than those of state-issued permits, EPA may well lack the money and manpower to exercise this authority; if it does wish to exercise its authority, it will face political opposition from the state involved; and it may well not be willing or able to withstand this pressure. (d) Administrative appeal and judicial review of NPDES permit decisions are lengthy processes which are often cluttered

with administrative law questions.

4) The use of state law (given the real or perceived inadequacy of FWPCA remedies) will harm both state and federal interests. One problem is the lack of a neutral forum for suit by a polluted state. Diversity jurisdiction in the federal courts is unavailable where a state is a party. Federal question jurisdiction would also be unavailable absent federal common law or a direct FWPCA violation. Only where both the plaintiff and the defendant were states would the Supreme Court have exclusive and mandatory original jurisdiction. However, this Court is a tribunal unfamiliar with conducting complex factual trials. Although the courts of the polluting state would retain jurisdiction, and courts in the impacted state might also have jurisdiction (depending on the breadth of its long-arm statute and the extent of the polluter's contacts with the polluted state), resort to the courts of either state would subject one party to a hostile forum and to the law and bias of an unfriendly neighbor.

5) The application of many and varied state laws to interstate waters could hamper federal pollution control, since the confusion may tend to increase public and congressional antipathy for pollution control, and uncertainty may lead to bureaucratic inaction and private avoidance of pollutation control laws.

6) The FWPCA (and the current Clean Water Act) was designed to establish and enforce standards of water pollution control aimed at whole classes of dischargers or pollutants and for entire water bodies. In some cases these standards are based on technological feasibility; in others they depend on crude administrative judgments

that human health and aquatic life need certain levels of protection. But the Act does not, and was not intended to, ensure thereby that no affected person will be harmed, and provides no specific mechanism either for compensating those who are harmed or for seeing that such harm necessarily is ended. Although the Act goes a certain distance toward these goals, it leaves to federal and state common law remedies the opportunity to seek redress for these specific instances of harm. Consequently, the Supreme Court in Illinois II misconceived the scope and intent of the Act in ascribing to it an all-encompassing and pre-emptive scope.

7) Although the Court in Illinois II seemed to attach much significance to the "fact" that the contested discharge was subject to direct regulation and control under the FWPCA (i.e., any attempt by a federal court to speak to these problems, by imposing common law standards more strict than those of the permitting agency, would impose a different regulatory scheme), the fact is that the federal courts (including the Supreme Court) have always acknowledged their authority to order a practice halted if it creates a nuisance, even if the activity is allowed under both state and federal law. For example, the Supreme Court, in New Jersey v. City of New York, 283 U.S. 473, 477 (1931), held that New Jersey was entitled to abatement of garbage dumping by New York City into the ocean, where the garbage washed ashore on New Jersey beaches, despite the fact that New York was in compliance with permits issued by the harbor supervisor under the 1888 Supervisory Harbors Act. See also, Mowrer v. Ashland Oil and Refining Company, 518 F.2d 659, 661 (8th Cir. 1975) (a lawful activity may be conducted so as to amount to a nuisance).

8) The Illinois II decision has since been extended well beyond its facts, compounding all of the above problems. For example, where damages are sought, rather than injunctive effluent standards, the courts should be especially reluctant to find a statutory preemption under the FWPCA and similar statutes which authorize no similar remedy. Where both parties are states (as opposed to the Illinois II situation, where the defendant was a municipality) and the "hostile forum" problem is consequently most acute, courts should resist applying the Illinois II rationale. Finally, where the relevant federal statute does not directly address the underlying facts--for example, pollution arising from a non-point source, for which no permit program exists under the FWPCA--no preemption should be found.

Comprehensiveness of the Clean Water Act and Other Federal Statutes

As noted above, the Clean Water Act and federal statutes generally are almost necessarily limited in their scope and comprehensiveness. They prescribe the basic contours of a regulatory program designed to secure broad national goals. What they do not do, and are generally incapable of doing, is to ensure that particular individuals (or natural resources) are safeguarded from harm. In such instances--particularly where there is an overriding federal interest, as where interstate or international waters or airsheds are involved--it is imperative that federal common law remedies be available to abate nuisances and compensate victims.

Moreover, as a matter of legislative intent, the citizen suit provision of the FWPCA, while providing a new source of statutory remedies for harm caused by water pollution, never intended to thereby eliminate rights and remedies that existed before. It was never Congress's intention to preclude other legitimate avenues for enforcing, or seeking remedies for, violations of the Act. The Clean Water Act guarantees certain rights, but it was not intended either to fill all of the interstices or to cut off other available means of enforcing its provisions and standards.

Section 505(e) of the Act explicitly preserves pre-existing statutory and common law remedies (not otherwise expressly superseded or preempted):

> Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief (including relief against the Administrator or a State agency).

The Supreme Court in Illinois II, employed convoluted reasoning (sharply attacked by the dissent) to reject the plain intent of this provision. The majority held that this savings clause means only that the citizen suit section does not restrict the application of other remedies established by Congress. Placing major emphasis on the words "nothing in this section," the Court argued that the Act as a whole could be preemptive even where the citizen suit section was not. Further, the Court reasoned that, even if the savings clause evidenced an intent to preserve common law, it preserves only state and not federal common law. Its only support for this notion was the supposed unlikelihood that Congress would encompass something as

uncommon as a federal common law of nuisance, whose existence and scope the majority asserted to have been in doubt at the time the FWPCA amendments were drafted. Ironically, the Court had no such difficulty in Illinois I despite the even less likely familiarity of Congress with a federal common law when the 1948 Act was adopted.

Justice Blackmun disagreed with the majority's view that § 505(e) only prevented preemption by the citizen suit section. Rather, he read the words "this section" as intended to prevent the imposition of citizen suit procedures upon pre-existing remedies. He viewed the majority's strained reading as leading to the untanable conclusion that all prior rights and remedies were preempted by the 1972 legislation.

Justice Blackmun also read the savings clause as encompassing and preserving both state and federal common law. He argued that Congress was aware of federal common law remedies when it drafted and passed the 1972 amendments. Since the savings clause "specifically preserve[d] any rights or remedies under any other law," without distinguishing federal common law from state common law, Justice Blackmun concluded that the clause prevented preemption of either type of common law by the FWPCA. He also asserted that every court that had previously considered the question had agreed that the savings clause preserved federal common law.

The majority, in addition, ignored (and the dissent failed to discuss) an important indication of Congressional intent with regard to the savings provision in the Senate Committee Report on

the 1972 amendments. The report states:

> It should be noted...that the section would specifically preserve any rights or remedies under any other law. Thus, if damages could be shown, other remedies would remain available. Compliance with requirements under this Act would not be a defense to a common law action for pollution damages.

S.Rep.No. 414, 92nd Cong., 2nd Sess. 81 (1971), reprinted in 2 A Legislative History of the Water Pollution Control Act Amendments of 1972, 93rd Cong., 1st Sess. 1499 (Comm. Print 1973).

Specifically, although the majority read the savings clause as doing no more than not restricting prior rights, the Senate Report speaks more affirmatively, saying the savings clause "would specifically preserve" prior rights. Under the majority's reading, the rest of the Act takes away the same remedies not restricted by the citizen suit section. And, although even under the majority's interpretation, compliance with the Act is not a defense to a common law action, the majority's view obviates the need for such a defense since it regards the mere existence of the statute as preemptive of any (federal) common law claim.

In short, the majority's analysis of the legislative intent of § 505(e) ascribes to Congress not only deplorably sloppy draftsmanship but a futility of purpose that the courts do not usually lightly attribute to the Legislature.

Other Statutes to Which the Milwaukee Rationale Might be Applied

The clear intent of the Illinois II decision is to limit the application of federal common law where Congress has not explicitly

approved. But even when Congress includes an apparent reservation of common law rights in a statute, as with § 505(e), the Court may apply a limited interpretation to such reservation. Any language purporting to preserve a common law right or remedy evidently will now have to be explicit.

The implications of this are particularly important because § 505(e) is virtually identical to provisions found in other environmental statutes, including:

1. Section 304(e) of the Clean Air Act, 42 U.S.C. § 7604(e) (Supp. II 1978).

2. Section 7002(f) of the Solid Waste Disposal Act [RCRA], 42 U.S.C. § 6972(f)(1976).

3. Section 1449(e) of the Safe Drinking Water Act, 42 U.S.C. § 300(j)-8(e)(1976).

4. Section 520(e) of the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. § 1270(e)(1976).

5. Section 20(c)(3) of the Toxic Substances Control Act, 15 U.S.C. § 2619(c)(3)(1976).

6. Section 105(g)(5) of the Marine Protection, Research, and Sanctuaries Act [Ocean Dumping Act], 33 U.S.C. § 1415(g)(5).

Consequently, if the Illinois II decision is allowed to stand, individuals who suffer health impairment or even death as a result of interstate pollution associated with hazardous air pollutants, hazardous solid wastes, contamination of potable groundwater, toxic mine tailings, PCB and toxic substances pollution, and ocean-dumped

wastes, may well have no remedy in the federal courts. Indeed, if there is a remedy even in the state courts, these victims of environmental releases may be relegated to what may be viewed as hostile forums within the states responsible for (or with a vested interest in) the releases for which they seek redress.

Effect of the Milwaukee Rationale on State Common Law

It is unlikely that the Court would find state law preempted, at least where intrastate discharges are involved, because the majority in Illinois II emphasized that § 505(e) probably referred to state common law and that § 510 (relating to non-preemption of more restrictive state controls) affirmed state authority to regulate intrastate discharges. While the Act takes pains to protect state power within its own borders, it is not similarly solicitous of state prerogatives where interstate waters are concerned. It is, thus, not inconceivable that Illinois II could in the future be extended or construed to preempt the application of state as well as federal common law where interstate pollution or resources are involved.

At least one federal court has held that the Supreme Court has not yet definitely resolved the issue of whether state common law of nuisance survived the demise of the federal common law of nuisance. Scott v. City of Indiana, 519 F.Supp. 292 (N.D.Ill. 1981). A recent law review note concludes that:

> The question of whether compliance with a FWPCA permit is a bar to a state common law of nuisance claim is likely to be an area of contention in future environmental litigation as a result of the decision in Milwaukee II.

Note, No Federal Common Law of Nuisance for Water Pollution, 2 Nat.Res. J. 441, 454 (1982).

Nature and Adequacy of Post-Milwaukee Remedies

One irony in the aftermath of the Illinois II decision relates to the tenuous status of state common law remedies. Under statutes, like the Clean Water Act, in which the states' right to "adopt or enforce" more stringent discharge standards or pollution control requirements is specifically preserved (§ 510(1)), the Supreme Court is unwilling to approve a cause of action in the federal courts to enforce state common law remedies. (And where interstate waterways are involved, the Court may yet view any state common law remedies as totally preempted). Conversely, under statutes like the Ocean Dumping Law which expressly prohibit states from adopting or enforcing any rule or regulation relating to any activity regulated by the Act, 33 U.S.C. § 1416(d), if federal common law remedies are unavailable, it would appear that state common law remedies will be unavailing to fill the void. In both cases, the ability of states to enforce common law remedies may have been largely nullified by Illinois II. (The fact that the Court's reasoning in Illinois II is unable to differentially accommodate express congressional determinations to preempt or not preempt more stringent state enforcement actions is itself strong evidence that this reasoning is erroneous).

One perverse consequence of the Illinois II decision is that, in 1983, more than a decade after adoption of the 1972 Water Act and other landmark environmental statutes, some of our citizens may

in fact be more rather than less vulnerable to the ravages of pollution and have more rather than less restricted access to the courts for redress of pollution-related damages they may sustain. To say that Congress intended such a result is to turn logic on its head.

Another point is worth highlighting. To preserve the availability of federal and state common law remedies is in no way tantamount to exposing licensed dischargers to limitless and disproportionate liability. Traditional nuisance law (and other common law) principles operate and would continue to operate to ensure that inequitable consequences did not result. As one legal commentator has noted in summarizing the prerequisites to recovery in a nuisance action:

> In any action concerning a public or private nuisance, any alleged interference must be found to be substantial and unreasonable to be a nuisance; mere invasion of a legal interest alone is not adequate ground for relief. In determining whether a nuisance exists a court will balance the equities involved in each particular case. In addition, the relief afforded will be largely determined at the discretion of the court. In making a determination whether the interference is unreasonable courts consider such elements as locale or character of the neighborhood, the social utility of the activity causing the interference, the gravity of the harm caused or threatened and the hardship which may result from any judgment.

Leybold, Federal Common Law: Judicially Established Effluent Standards As A Remedy in Federal Nuisance Actions, 7 Envir. Affairs 293, 304 (1978).

Ways to Restore the Federal Common Law

As this Committee is well aware, in October of 1981, the

full Senate approved an amendment to the Clean Water Act (in conjunction with reauthorization of the construction grants program), which would have provided explicitly that the Act does not displace or limit other Federal or State law, including common law. While no counterpart provision was adopted by the House, the Conference Report (No. 408, 97th Cong., 1st Sess.27 (1981)) noted that "failure to include this provision is without prejudice and is not intended to displace remedies other than those under the Federal Water Pollution Control Act" and reflected "an agreement to examine further in the next session the best means to accomplish this intent."

The National Wildlife Federation was supportive of the Senate amendment (introduced by Chairman Stafford) in 1981 and continues to support this approach to clarify congressional intent that the Clean Water Act was never meant to displace pre-existing or concurrent federal or state common law remedies. Similar clarifications would be desirable for the other environmental statutes which contain similar citizen suit sections and savings provisions (see discussion above).

We would propose the following specific amendments to the Clean Water Act:

(1) Revise Section 505(e) to read as follows:

"Nothing in this Act shall be construed, interpreted, or otherwise deemed to displace, restrict, limit, affect, or modify in any way any right which any person (or class of persons) may have under this Act or any other statute or under Federal or State common law to seek enforcement of any effluent standard or limitation or to seek any other relief at law or equity, including the right to seek abatement or damages (including relief against the Administrator or a State agency)."

(2) Revise Section 511, by adding a new subsection at the end thereof, as follows:

> "(e) Nothing in this Act shall be construed, interpreted, or otherwise deemed to displace, restrict, limit, affect, or modify in any way the obligations or liabilities of any person, or the right to seek abatement or damages, under other Federal or State law (including enforcement of this Act under 42 U.S.C. § 1983 to redress violations by state officials of rights created by this Act), including Federal or State common law."

We would support either parallel amendments to clarify the situation under the various environmental statutes that present a similar problem, or a comprehensive bill to solve this problem simultaneously for all affected statutes.

We appreciate the opportunity to present these views.

REMARKS OF RICHARD W. CUTLER TO ENVIRONMENTAL POLLUTION SUBCOMMITTEE OF UNITED STATES SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

APRIL 6, 1983

The question is whether the Clean Water Act should be amended to overrule the Supreme Court in Milwaukee v. Illinois and impose on those who discharge into interstate waters the "federal common law" in addition to the Clean Water Act and its regulations.

I stand before you as a representative of more than one million people in Milwaukee and its suburbs who are victims of what can happen when Courts are permitted to apply individual concepts of sewerage treatment requirements - if there are no uniform statutory or regulatory mandates to which they must adhere. A Chicago federal district court imposed requirements on Milwaukee which would have cost approximately one billion additional dollars beyond the 1.7 billion dollars Milwaukee was already spending under its permits for improvements to the Milwaukee waste water treatment system. The additional requirements were so far out of line with reality that the federal authorities in 1978 refused to consider the additional requirements eligible for funding!

The Supreme Court in the two Milwaukee decisions in 1972 and 1981 reaffirmed one old rule and applied a second:

1. Federal law rather than state law must control interstate water controversies (this is an old principle going back 100 years.).

2. The federal statutory law displaced the federal common law.

Those two rules operating together promote uniformity in the standards to be applied to achieve clean interstate water.

I think all will agree that the extreme example of Milwaukee should not be permitted to be repeated in countless cities across this nation. Nothing could be clearer: the federal common law is a creature of many individual cases each independently decided on its own facts. The common law, if applied, would subject all cities on interstate water to the unbridled and uncontrolled imposition of what an individual judge might dictate in the case controlling that particular city. Note that this would be without regard to the economic or political consequences to the affected municipality and its citizens; as the District Judge said in the Milwaukee case,

> " ... this [Court] order will not be contingent upon your getting federal funding. Milwaukee sewage is not a federal problem."

Of course, this was after the same District Judge said:

> "The nature of the subject matter here, however, is such that my own experience and observations in life are of relatively little use to me. It is well known to all of us that the arcane subject matter of some of the expert testimony in this case was sometimes over the heads of all of us to one height or another."

I cannot emphasize too strongly that it is a mere coincidence that places me before this committee rather than the representative of another metropolitan area similarly situated. It could have been New York, Philadelphia, Providence, Detroit, Minneapolis or San Francisco. All of those metropolitan areas require the protection of uniform statutory control and the expertise of a regulatory agency. It would certainly be unfortunate if that system were to be replaced by a non-system with total chaos and uncertainty existing through the nation dependent for its resolution upon the course of untold numbers of cases proceeding through the federal court system at the usual unhurried pace of that system.

The special federal interest here is not new. The Supreme Court itself has made this very clear. In the recent case of Texas Industries, Inc. v. Radcliff Materials, Inc., et al. decided on May 26, 1981, the Court stated:

> " . . . In these instances, [including interstate and international disputes implicating the conflicting rights of states] our federal system does not permit the controversy to be resolved under state law, . . ."

* * * *

Then, in a footnote the Court after citing the first Milwaukee case said:

> " . . . In Hinderlider v. La Plate River & Cherry Creek Ditch Co., supra, at 110, decided the same day as Erie, [in 1938] the Court observed: 'Jurisdiction over contro-

> versies concerning rights in interstate streams is not different from those concerning boundaries. These have been recognized as presenting federal questions.'"

The problem of water pollution abatement is universal for cities throughout this nation. Often the ultimate discharge of sewage effluent, after treatment and purification, is to interstate waters where constitutionally only federal law can be applicable. We submit that the only rational control is a legislative balance of the national environmental concerns with the practicalities and the economic considerations presented.

We note in passing that most concerns with the victims of pollution relate to discharges on land. These were the subject of the Section 301 Superfund Study, prepared for the U.S. Senate in September, 1982. Those concerns are separate from those presented here. Nothing is suggested by the report or by concerns about conventional pollutants such as BOD and SS which would justify violating the rule of uniformity as to water standards by giving hundreds of federal judges carte blanche to establish their own standards, higher or lower than contained in the Act.

We have submitted a more lengthy analysis of both the problems presented and law applicable in respect of this overall problem.

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April 20, 1983

Honorable Robert T. Stafford
Committee on Environment and Public Works
Room 410
Dirksen Senate Office Building
Washington DC 20510

Dear Senator Stafford:

After having had an opportunity to review and consider the proceedings at the Subcommittee hearings on April 6 it occurred to me that my responses to the questions posed in your mailgram of March 31, 1983, may have resulted in some ambiguities because they had to be addressed in the short time available. I thought that I would take the liberty to set forth a more specific response to the questions. I am sending a copy of this letter to Senator Chafee and request that it be included in the record together with the other material previously presented.

1. The wisdom of the Milwaukee decision based on the facts in that case.

Answer: Milwaukee was under a state court order to expand and rehabilitate its sewage collection and treatment system in order to achieve consistent compliance with federal and Wisconsin Clean Water Act requirements, at the time when the federal District Court Judge, saying that he was acting under federal common law and Illinois common and statutory law, ordered additional collection and treatment standards to be met which exceeded by One Billion Dollars the cost of compliance with the federal and Wisconsin statutory and regulatory standards. The court order was monstrously excessive of what was needed to achieve compliance with the federal act and protect Lake Michigan. The "federal common law" and the Illinois common and statutory law were the bases for ordering advance waste treatment which would have required achieving an effluent of five parts per million SS and BOD in contrast with the 30-30 standard established in the federal statutes and the NPDES permits. Second, the

combined sewer would have been required to be so rebuilt or, strictly speaking, replaced as to provide for the collection, storage and treatment of the discharges formerly handled by the combined sewers at all times excluding only the 100 year storm. That contrasts with requirements in the permits and longstanding federal regulations of limiting discharges to once in six months in the judgment of the District engineers, or in the opinion of other engineers, once in a year. In light of these facts, the Supreme Court decision in Milwaukee II, which overturned the erroneous and excessive lower court order, was an imminently correct and wise decision.

2. Whether the Clean Water Act and other statutes are sufficiently comprehensive to justify supplantation of federal common law?

Answer: Milwaukee v. Illinois decided that the Clean Water Act with its 154 pages of statutes, 1700 pages of regulations and 1000 pages of Congressional history had established a comprehensive set of regulations and that there was no need for judge made law to fill in any "gaps". I think the decision is correct. Other federal statutes are not identical with the Clean Water Act and the court may decide, as it did in Milwaukee I as to the former Clean Water statutes, that other federal environmental statutes are not yet comprehensive.

3. What statutes have been or might be construed as displacing the federal common law under the rationale of the Milwaukee decision?

Answer: Some lower court decisions have held that the Milwaukee rationale means that the federal common law in the area of hazardous waste management has been displaced by RCRA and the Superfund law. In our judgment Appellate Courts may possibly decide differently.

4. Does the rationale of Milwaukee justify supplantation of state common law:

Answer: Under the Clean Water Act in interstate disputes only federal law can apply. As my testimony

before the Subcommittee shows at pages 91, 109-110 many court decisions hold that in a purely intrastate water dispute state common law continues to exist. In my testimony I characterized the existence of state common law as "grey" because an argument can be made that if the dispute involves any navigable waters over which the federal government has jurisdiction only federal law can apply. However I believe that the better view is that state common law is applicable in a purely intrastate dispute that does not involve the interests of federalism", the nature of the parties, and the type of relief sought in the Milwaukee decision. Under other environmental statutes such as RCRA, disputes most frequently are intrastate, in sharp contrast to water disputes which are usually interstate. According to the Superfund 301 Study prepared for your committee, state common law is occasionally implemented by state statutes, and is the prime and perhaps exclusive source of determining the nature and adequacy of remedies available to litigants.

5. Comment on the nature and adequacy of the remedies available to litigants after the Milwaukee decision.

Answer: The Superfund Study already referred to suggests that the federal common law, which was the subject of the Milwaukee decision, had a small and brief role to play in dealing with the remedies available to victims of hazardous waste pollution. That study suggests the need for reform in the state common law and recommends that such reforms be the subject of hearings by Congress. We think that in view of the depth and scope of the Superfund Study, that it's erroneous to attempt to amend the Clean Water Act by in some way overturning an eloquently correct Supreme Court decision.

Very truly yours,

QUARLES & BRADY

By: Richard W. Cutler

RWC:js

cc: Honorable John Chafee

WRITTEN STATEMENT OF ROBERT HASKELL ABRAMS

My name is Robert Haskell Abrams. I am Professor of Law at Wayne State University and Visiting Professor of Law at the University of Michigan. I would like to thank the Committee for the opportunity to speak today. I feel well qualified to speak to the issues confronting this committee because my teaching responsibilities and scholarly interest lie in the areas surrounding the Illinois v. Milwaukee litigation -- Water Law, Environmental Law, Federal Courts, and Constitutional Law. Similarly, I have served as a member of the Michigan Water Resources Task Force since its inception.

Having reviewed the testimony given to the Environmental Pollution subcommittee last July, it is apparent that the Committee is already conversant with the course of the Illinois v. Milwaukee litigation from 1972 to 1981. Likewise, it is clear that the previous testimony has adduced many of the central arguments concerning the rectitude of Justice Rehnquist's conclusion that the 1972 amendments to the Clean Water Act "preempt" federal common law of interstate water pollution nuisance. Although I believe it probable that the majority of the court misconstrued the intent of the 1972 Water Quality

Amendments, these hearings properly focus in large measure on the more general question of whether the Congress should act to reestablish and confirm the role of federal common law as a means of protecting the American environment. As the remainder of this statement will indicate I strongly believe that federal common law has a critically important role to play in acheiving suitable levels of environmental quality.

I. Reading City of Milwaukee II

The result in City of Milwaukee II is defensible if it is viewed as a highly fact specific determination that Congress, through its delegate, the EPA, intended to set precisely the federal environmental obligations of the defendant in the operation of its waste water treatment plant. Such a view would foster the policy concern, voiced by Mr. Jankel in the July hearings, that POTW's and other dischargers need to know with absolute certainty the federal standards which they must meet. From that perspective, imposing additional or different requirements via federal common law frustrates the intended workings of the discharge permit process which was fully competent to vindicate the interests of Illinois. Congress arguably intended to force

Illinois and others similarly situated to rely on the permit process. §402 of the Clean Water Act provides for participation in permit proceedings by all who claim to be adversly affected by the proposed permit. Further, the directive to EPA is not modest: EPA is to promulgate standards for all industrial point source polluters and for all POTW's governing all effluents which they may emit. If EPA is remiss, it can be sued and ordered to do its job. Finally, §505(e) appears to preserve state common law remedies for water pollution nuisance so that additional non-statutory relief would be available upon a proper showing by plaintiffs. Presumably an action by injured Illinois citizens would lie under Illinois and/or Wisconsin common law. Under these circumstances City of Milwaukee II's finding that Congress defined the maximum degree of federally imposed pollution control is plausible.

Professor Tarlock in the July hearings criticized that conclusion on the ground that it implicitly denies a role to an important competing policy -- the public interest in full protection from unanticipated health risks. Nevertheless, on its facts, the balance struck in City of Milwaukee II is one as to which reasonable people may differ: the interest in certainty of federal regulation may outweigh the interest in more comprehensive environmental remedies, especially

when state common law appears to be available to supplement statutory remedies. In sum, the outcome of City of Milwaukee II which prevented a federal court from readjusting the design and timetable for construction of Milwaukee's sewage system is not a bad result.

The flaws of City of Milwaukee II are independent of its result, they inhere in its reasoning and its role as a precedent capable of easy misapplication. As I detail in Part II of this testimony City of Milwaukee II as a precedent is now being applied recklessly by the federal courts. I choose that adjective with its conversational and legal meanings in mind -- City of Milwaukee II is being invoked too freely and thoughtlessly, and with a disregard for human safety.

The internal reasoning of City of Milwaukee II is flawed and results in a dilemma: either the case fails to provide the requisite certainty to polluters that justified its adoption, or, more invidiously, the decision is simply a sham when it claims that the availability of state common law of nuisance remains to fill the remedial gaps inevitably present in environmental protection legislation.

A. The Failure to Give Dischargers Certainty

The first horn of the dilemma is posed by sections 510 and 505(e) of the CWA which allow states to opt for more stringent regulation and provide for the savings of common law remedies. These provisions work to undermine an important element of the logic of City of Milwaukee II.

Justice Rehnquist argues that the Clean Water Act, due to its adminstrative and regulatory comprehensiveness, defines the extent of pollution control that may be imposed on a discharger under the auspices of federal law. He says, "It would be quite inconsistent with this scheme if federal courts were in effect to "write their own ticket" under the guise of federal common law after permits have already been issued and permittees have been planning and operating in reliance on them." (emphasis supplied) This rationale for ouster of federal common law is undercut only three sentences later when Rehnquist admits that pursuant to §510 "States may adopt more stringent limitations through state administrative processes, or even that States may establish such limitations through state nuisance law, and apply them to dischargers." It is difficult to comprehend why the reliance interest of permittees is not vitiated by letting state courts "write their own ticket" under state nuisance law.

Application of state law is, if anything, more

unsettling than application of federal common law. In the case of interstate environmental effects, plaintiff is free to forum shop for the most favorable choice of law. Using the facts of City of Milwaukee as an example, suit could be brought in a Wisconsin state court which would almost certainly apply its own law, but a suit brought in Illinois state court might permissably apply Illinois' law of nuisance to the case. Modern concepts of due process and full faith and credit would permit such a suit. There is no constituitonal impediment to Illinois' exercise of long arm jurisdiction over the Wisconsin discharger who is alleged to have committed a tortious act in Illinois, nor is the choice of Illinois substantive law barred by the constitutional standards announced by the United States Supreme Court in the recent case of Hague v. Allstate Insurance Company.

A critical issue in the state common law suit is likely to be the validity of an affirmative defense based on defendant's compliance with all applicable regulatory measures. The efficacy of this defense varies from state to state. At the extreme, a state might hold that permit compliance is per se reasonable conduct. At the other extreme, Michigan expressly authorizes its courts to independently examine the adequacy of any regulatory standard and reset the standard involved if it is necessary

to do so in protecting the State's natural resources from pollution, impairment or destruction. No doubt such choice of law differences lead to uncertainty and wholly upset the polluter's reliance interest. In mild contrast, federal common law of nuisance, after a bit of case-by-case development, would offer more certainty to regulated dischargers because the scope of their potential liability beyond permit compliance would be determined with reference to a single body of common law.

It may be viewed as wise to channel these interstate resource use disputes into a federal forum rather than a state forum. Apart from the life tenure of federal judges, there is an understandable difference of viewpoint among the polities served by the respective state court judges. The bulk of the burdens from Milwaukee's sewage discharges are borne by Illinois residents, while the totality of the costs of increased pollution control (should Milwaukee be ordered to do more than their permit required) are borne by Wisconsin taxpayers and sewerage customers. There is a natural tendency for local judges to share the worldview of the citizens found in their respective jurisdictions about what is reasonable behavior. An Illinois judge may more readily conclude the despoilation of the common resource is unreasonable, while the Wisconsin judge may feel that

Milwaukee is doing all that can reasonably be done given the fiscal impacts of adding additional pollution control measures. It might be preferable to have a federal adjudication from a perspective that is above the fray. Thus, federal common law will not only eliminate the vagaries of choice of law problems, it might have the additional effect of focusing litigation in a more dispassionate forum. (Cases arising under federal common law can be adjudicated by state courts but defendants have a right to remove to federal court pursuant to 28 U.S.C. §1441.)

Importantly, allowing a federal common law suit does not mean that an injunction or damages will follow automatically, it only means that a plaintiff will be allowed to put in proof that defendant-polluter is unreasonably interfering with plaintiff's rights. Plaintiff has the burden of proof to carry on all issues necessary to establish a prima facie case. Defendant may in appropriate cases avoid liability altogether on the basis of a defense based upon compliance with state and federal regulations. Failing that, plaintiff's remedy may be limited to damages if the federal judge decides that the balance of equities favors defendant.

A few generalizations about the likely course of

federal common law litigation are in order. First, in the two post-City of Milwaukee II cases recognizing non-preemption of federal common law in non-environmental litigation, plaintiff's claims have been rejected. This indicates that courts carefully consider the impact that common law will have on statutory law. Particularly important, in one ERISA case (a statute that expressly allows for creation of federal common law) the court found that no relief should be granted in the particular case because to do so would not advance statutory policies. Second, the "permit defense" is likely to be an important element and at least a partial defense in all cases. Permit compliance negates the possibility of punitive damages based on bad faith unless the permit was obtained fraudulently or on the basis of misleading information. Third, in balancing the equities, a court will be hesitant to substitute its view of the best technological solution for that of the experts absent proof that the experts failed to consider the environmental evils at issue in the case. Courts are surprisingly conservative institutions in this regard. Finally, although opponents of federal common law predict its availability will spawn thousands of law suits, experience and economics predict otherwise. The Michigan Environmental Protection Act, a far more general

authorization of environmental common law, has generated less than 200 suits in more than 12 years of operation. Further, the cost of litigation is a deterrent to common law suits. Although attorneys fees are recoverable costs in statutory litigation under many of the federal environmental statutes (see, e.g., RCRA, 42 U.S.C. §6972(e)), fees will not be available in these non-statutory suits. In sum, to reestablish the federal common law of environmental protection does not create a rule of strict polluter liability. It merely allows the court to consider whether defendant has illegally invaded plaintiff's rights, a position not at variance with announced Congressional goals under the Clean Water Act, and other major environmental legislation. The minimal problems created by recognizing federal common law coupled with the fact that its elimination does not foster certainty for dischargers renders all benefits of the City of Milwaukee II decision illusory. If anything, ouster of federal common law operates in a dysfunctional way. As to a single interstate dispute, the common law of either state might apply; as to a category of dischargers, chemical plants for instance, no national certainty is possible. The location of a plant will render the host state's common law applicable. The reasoning of City of Milwaukee II, taken at face value

should be disavowed.

B. Possible Ouster of State Common Law

The same arguments that Jusitce Rehnquist urges in favor of eliminating federal common law are likewise capable of eliminating state common law. If both federal and state common law are eliminated, polluters could indeed feel secure that compliance with the Clean Water Act is all that will ever be required of them. The second horn of the dilemma becomes more focused. Elimination of state common law brings certainty, but the continued availability of state common law was the avowed justification for "preemption" of federal common law. The availability of state common law when combined with the remedies of the Clean Water Act provided a sufficently diverse set of remedies to fully protect the environment. Thus, it would appear to be highly disingenuous for the Supreme Court to accept an argument that state common law is pre-empted by the Clean Water Act, or that application of state common law in a particular case conflicts with, or hampers federal law.

The case for total preemption of state law is not overwhelmingly strong. Preemptive intent is the critical element in these cases. The previously cited sections of

the Clean Water Act (§§510 and 505(e)) both express "the clear and manifest purpose of Congress" to allow at least a limited state role.

Arguing for ouster of state common law on a case-by-case basis is, however, quite different than urging total preemption. Any state enactment that stands as an obstacle to the accomplishment of a federal purpose or statutory goal will be invalidated pursuant to the Supremacy clause. This is different than saying that Congress has left the states no role whatever in the regulation of a particular field. There is no reason to believe that the arguments regarding the policy of certainty of pollution control requirements cannot be advanced in this context. For example, in recounting the cases in which state law may be displaced by federal law, Justice Rehnquist adverted to federal supremacy "when enforcement of state regulations would impair 'federal superintendance of the field' (citation omitted)." Similarly, Rehnquist asserts in City of Milwaukee II that Congress "has occupied the field through the establishment of a comprehensive regulatory program supervised by an expert administrative agency." It is hard to see how this ennunciated plan of comprehensive regulation is any less discomfitted by decrees entered pursuant to state common law of nuisance than by judicial forays that arise under federal

common law auspices. In City of Milwaukee, for example, court ordered alterations in the sewage treatment facilities and timetable for construction could easily be identical under state or federal common law. Whether protection of the federal regulatory pattern is labelled "preemption" of federal common law or merely supremacy clause invlaidation of state law, the cases present identical threats to the goals of regulatory hegemony.

The savings clauses of the Clean Water Act, §§510 and 505(e) as noted above, prevent total preemption of a state role in Clean Water Act matters. Read realistically, however, the role contemplated for the states under §510 is use of the permit process to set more stringent effluent limitations than the federally fixed national levels. Alternatively, it may be held, when the issue is presented, that §510 allows states to authorize damage suits against permit-obedient polluters, but that injunctive relief is inconsistent with the federal regime.

The language of §505(e) that appears even more conducive to a continued role for state common law has already been interpreted in a way that limits severely its value as a savings clause. Justice Rehnquist observes in regard to §505(e) that it is section specific, "Nothing in this section shall restrict any right which any person may

have under any statute or common law to . . . seek . . . relief . . ." (emphasis supplied by Justice Rehnquist). His words are instructive if one asserts that the Clean Water Act cannot oust state common law due to the presence of §505(e), "[I]t most assuredly cannot be read to mean the Act as a whole does not supplant formerly available federal common law actions but only that the particular section authorizing citizen suits does not do so." There is absolutely nothing that distinguishes state common law from federal common law in regard to Justice Rehnquist's reading of §505(e).

In partial summary, this discussion raises several points. First and foremost, City of Milwaukee II does not guarantee the preservation of common law remedies. In fairness, it did not rule that they are unavailable, but the logic of displacement of federal common law is equally compelling when applied to state common law. Second, to the extent that City of Milwaukee II and its ouster of federal common law rest on the continued availability of a full range of state common law actions and remedies the Court might be hesitant to oust state common law remedies when the case presenting that issue arises. Nevertheless, the rationale for eliminating common law that gave rise to City of Milwaukee II is wholly applicable to state common law.

Thus, no one should be surprised when state common law is held unavailable. At that point in time City of Milwaukee II will appear to be a most disingenuous decision to the extent that it was in part premised on the continued availability of state common law remedies.

II. The Expansion of City of Milwaukee II

City of Milwaukee II has not remained an isolated decision. Rather it has become the guiding precedent for environmental cases in wide ranging fields. "Preemption" of federal common law has been found with reference to:

(1) the Clean Water Act

(2) the Marine Protection, Research and Sanctuaries Act

(3) the Resource Conservation and Recovery Act (RCRA)

(4) the Comprehensive Environmental Response Compensation and Liability Act (CERCLA a/k/a "Super fund")

and (5) the Clean Air Act. (A list of cases and citations appears in an Appendis at the end of this testimony.) Review of the opinions supporting these ousters of federal common law finds an increasingly wooden recitation that the federal statute involved is "comprehensive." Absent from many of the later decision is the careful determination that

the alleged environmental harm was intended by Congress to be wholly addressed without reference to federal common law remedies. Generally, these later decisions have the effect of limiting the scope of federal environmental protection to that which the EPA, as administrator of the federal environmental laws, is willing and able to provide. As recent events involving EPA appear to demonstrate, this is not always adequate protection. Worse yet, the sterile extention of City of Milwaukee II denies federal remedies for wholly forseeable environmental dangers of the highest magnitude.

Although it is tempting for me as a Michigander to take cheap shots at EPA's handling of the Dow-dioxin affair, I will instead attempt to explain how City of Milwaukee II, by its own force, "preempts" federal judicial remedies for Dow's dioxin discharges at the present time. Dow is a point source discharger into the Titabawasee River pursuant to a NPDFS permit. The permit does not limit dioxin discharges because EPA has not yet issued effluent limitations governing TCDD (the acronymn for dioxin's chemical name). Although the Dow episode might change EPA's mind, as recently as November 30, 1982, EPA proposed to leave TCDD unregulated pending further data collection. Dioxin is but 1 of 22 priority pollutants to be left unregulated for that

reason. Chlordane is on the same list, it is a pesticide that is otherwise severely regulated because it is a known animal carcinogen. Also in the list is acrylonitrile, another proven carcinogen. EPA has also proposed for non-regulation more than 120 nonconventional pesticides. The list includes EPN, a proven neuro-toxin that poisons organisms through a delayed impact on the neurological system. Hexachlorophene is also on the list. Many other of the substances on the list are equally dangerous. (The complete list appears in the Federal Register for November 30, 1982, Appendices F and G at pages 54012-13.

My point is not to belabor the failure of EPA to regulate these carcinogens and toxins. Good faith lack of data upon which to promulgate a national standard is an acceptable reason for inaction. Instead, the example demonstrates that discharge of these chemicals into the nation's waters is unchecked by the Clean Water Act at the present time. In §101 of that Act Congress declared foremost its goal of eliminating all discharge into the nation's waters. More realistically Congress announced the policy of freeing citizens from health hazards and providing sound levels of water quality. Federal common law complements the CWA permit system in acheiving these goals. Without common law remedies, known toxins and carcinogens

can be loaded into the ecosystem until EPA has a sufficient data base to promulgate national effluent limitations. Until that data is collected City of Milwaukee II frustrates the policy of the Clean Water Act and exposes citizens to unacceptable health hazards.

Turning to the wooden extensions of City of Milwaukee II, the RCRA and Superfund cases are in my view most troubling. Two cases have come to my attention: U.S. v. Price and Philadelphia v. Stepon Chemical. Both easily found RCRA and Superfund to be "comprehensive" and thus "preemptive" of federal common law. Facially, the statutes appear to be complete. They detail the handling of hazardous wastes and their clean up with a thoroughness that prompted one judge to call RCRA "cradle to grave" regulation. Even if this characterization by the Court is accurate, plaintiffs should not suffer a non-suit (a 12(b)(6) dismissal for failure to state a claim on which relief can be granted) without an opportunity to show that their case is one which these laws do not adequately govern. City of Milwaukee II pretermits case-by-case decisions on this issue when it is too quickly invoked by United States District Court judges who view it as the general rule rather than the narrow exception.

There is strong evidence that federal common law was

intended to be available to fill the gaps in RCRA.

Representative Florio, drafter of portions of RCRA states in the Congressional Record of September 8, 1982:

> Congress never intended that RCRA was designed to replace the Federal common law of nuisance. I wrote the provision of the law, and I can authoritatively assert that it was not the intention.

Nevertheless in all RCRA cases considering the issue, City of Milwaukee II has been held to forbid federal common law.

In ousting federal common law judges rely on a talismanic finding of "conprehensiveness" based on the complexity of RCRA. Their conclusion about comprehensiveness is not shared by the Federal Office of Technology Assessment. In OTA's recently issued report on Hazardous Waste Control the very first paragraph reads:

> Newly established Federal regulations for hazardous waste management facilities may not effectively detect, prevent, or control hazardous releases, especially over the longer term. Moreover, some regulatory standards and controls will be set by State authorities, who may not have the resources to make technically complex decisions. Consistent levels of protection nationwide are not assured. (page 3)

Under OTA's scrutiny RCRA is indeed not comprehensive. There is, among others, a small quantity exemption:

> Wastes from small generators are not tracked through the manifest system and can be treated or disposed of either in permitted hazardous waste facilities or in subtitle D sanitary landfills. EPA included this initial exemption in its regulatory program because of the administrative problems in overseeing thousands of small generators, such as drycleaners, gas stations and paint stores. The exemption was based on

> administrative convenience and not on the hazard posed by waste and its unregulated disposal. (page 381, emphasis supplied)

The immediate concern is not the wisdom of the exemption, for it may be quite sound. The point is that the problem of comprehensive federal hazardous waste management would be advanced, not hindered, by the availability of federal common law remedies in such cases.

In Superfund cases remedial issues are likewise critical to public health. EPA has created a calculus that governs the order in which sites should be purged of public health dangers. OTA reviews this ranking system and concludes:

> It is conceiveable that a truly hazardous site may not score sufficiently high to receive attention . . . (384, emphasis in original)

There is no acceptable reason why federal common law should be unavailable to aid in the protection of public health.

Beyond filling statute-specific gaps in the coverage of comprehensive federal statutes, reestablishment of federal common law in the environmental field can redress a structural weakness of national enviornmental protection. There is a lowest common denominator effect in all national regulation. In setting standards for a wide range of cases, federal law undoubtedly works injustice in some local situations. To offset unnecessary stringency, EPA or its

state delegates often provide variance procedures. In the event a local situation poses extraordinary environmental concern, federal common law would provide a vehicle for bolstering environmental protection. Clearly, however, the greater importance of federal common law remains its ability to fill statute-specific gaps, and to allow courts room to consider in each particular factual setting, whether the statute involved is truly comprehensive.

III. The Means of Reestablishing Federal Common Law

There is no doubt that Congress can authorize federal common law in environmental cases. The interstate commerce power is sufficiently broad to justify federal regulation of environmental matters. The reach of this power is not limited to interstate activities but can reach into the states and govern wholly intrastate activities that can be deemed to affect interstate commerce.

The more interesting issue is the best means by which to reestablish federal common law after City of Milwaukee II. Language that might accomplish the result should be tempered in such a way that it does not suggest plaintiffs should always win. Possible phraseology might be as follows: "§_____ Nothing in this Act shall wholly

displace federal common law." The term "wholly" leaves open the possibility that on a case-by-case basis courts may find that granting federal common law relief will impair statutory effectiveness. If further guidance to the judiciary is deemed advisable, a statutory revision could specify that beyond injury and causation, the issues to be evaluated in deciding whether plaintiffs are entitled to prevail include: (1) availability of adequate alternative remedies, (2) the conflict, if any, of granting relief with other policies implicit in the federal statutory enactment and (3) (in regard to injunctions) the traditional equitable doctrines of balancing of the equities and laches. (This list is offered by way of example, not in the belief that it is comprehensive.)

To conclude -- the testimony has stressed the serious gaps in federal protection of human health and natural resources that have arisen in the wake of City of Milwaukee II. Reestablishing federal common law in environmental matters is consistent with the announced policy of the Congresses that have enacted a set of excellent environmental laws. Federal common law calls for an articulated and reviewable judicial balancing . Judges would be asked to balance the reliance interest of those regulated by federal environmental laws in being subject to a pattern of consistant regulation against the reliance interest of the public in an environment totally free of unreasonable health hazards. Allowing resort to federal common law is far better than assuming statutory complexity is a certain proxy for comprehensiveness.

Thank you.

Appendix

List of Cases Applying City of Milwaukee II (unless otherwise noted all holdings displace federal common law in areas governed by federal environmental laws.)

1. Middlesex Co. Sewerage Authority v. National Sea Clammers Association, 453 U.S.1 (1981) (Clean Water Act (CWA); Marine Protection, Research and Sanctuaries Act).

2. In re Oswego Barge Corp., 664 F.2d 327 (2d Cir. 1981) (CWA).

3. Barony v. Buller, 670 F.2d 726 (7th Cir. 1982) (non-environmental case, Federal Credit Union Act, no preemption of federal common law).

4. In re Oswego Barge Corp., 673 F.2d 42 (2d Cir. 1982) (CWA).

5. Van Ormon v. American Insurance Co., 680 F. 2d 301 (3d Cir. 1982) (non-environmental case, ERISA, federal common law expressly authorized by statute, but relief denied due to failure to advance statutory policy).

6. People of the State of Illinois v. Outboard Marine Corp., 680 F. 2d 473 (7th Cir. 1982) (CWA, even as applied to pre-1972 discahrges).

7. U.S. v. M/V Big Sam, 681 F. 2d 432 (5th Cir. 1982) (CWA).

8. Scott v. City of Hammond, 519 F. Supp. 292 (N.D. Ill., E. Div. 1981) (CWA).

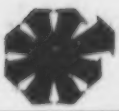
9. U.S. v. Price, 523 F. Supp. 1055 (D.N.J. 1981) (RCRA, CERCLA).

10. Love v. New York State Dept. of Environmental Conservation, 529 F. Supp. 832 (S.D.N.Y. 1981) (CWA).

11. U.S. v. Kin-Buc, Inc., 532 F. Supp. 699 (D.N.J. 1982) (Clean Air Act (CAA)).

12. Connecticut v. Long Island Lighting Co., 535 F. Supp. 546 (E.D.N.Y. 1982) (CAA).

13. Philadelphia v. Stepon Chemical Corp., 544 F. Supp. 1135 (E.D. Pa. 1982) (RCRA, CERCLA).



ROCKFORD AREA CHAMBER OF COMMERCE

STATEMENT RE SENATE BILL 431

BY THE

ROCKFORD AREA CHAMBER OF COMMERCE

AND THE

SANITARY DISTRICT OF ROCKFORD

BEFORE

THE SENATE SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

PRESENTED BY

JON L. OLSON

DISTRICT DIRECTOR,

SANITARY DISTRICT OF ROCKFORD

April 6, 1983

615 East State Street • P.O. Box 1747 • Rockford, Illinois 61110 • 815/987-8100

19-871 536

Thank You, Mr. Chairman, for the opportunity to submit the views of the Rockford Area Chamber of Commerce and the Sanitary District of Rockford on this most important piece of legislation, namely, Senate Bill 431. We strongly support this Bill because it is a "common sense" approach to meeting the goals of the Clean Water Act, which we endorse. In its wisdom, Congress, in the Clean Water Act, "recognized the primary responsibilities and rights of the States to prevent, reduce and eliminate polluction..." It follows, then, that States and local communities may establish regulations to enhance and to protect the environment, and that national regulations shall be required only when States and local communities are incapable of achieving environmental protection. Senate Bill 431 clearly recognizes this provision when it provides for local alternative pretreatment standards in lieu of national categorical standards.

Industry in Rockford worked closely with the Sanitary District of Rockford even before the enactment of the Clean Water Act in 1972. In 1972, Rockford area industry gave its strong support to a major bond referendum by the Sanitary District to enlarge the system to meet the growing demands of the community and to insure continued compliance with water quality standards. The referendum was heartily approved by the community and the work commenced immediately; most of the projects have now been completed.

In addition, industry and the District have jointly developed pretreatment ordinances and discharge limits which enable the District to meet all of the water quality standards for the receiving stream, namely, the Rock River. We were one of the first communities in the United States to enact a User Charge system is compliance with Sec. 204, Limitations and Conditions of the Clean Water Act.

We submit the foregoing as proof that a local POTW can achieve the goals of the Clean Water Act without the imposition of National Categorical Standards. A POTW which fulfills the requirements of Section 403.8, POTW Pretreatment Programs, General Pretreatment Regulations, and establishes discharge standards which will enable it to consistently comply with its NPDES Permit, has no need to impose National Categorical Standards on the dischargers to its system.

The unnecessary imposition of National Categorical Standards creates an economic burden which industry can ill afford to assume at any time, much less in this desperate economic period. The Rockford area is a major manufacturing center in Northern Illinois with a population of 200,000. Major markets served are automotive, housing, aircraft and

machine tools. Unemployment in Rockford ranged from 11.4 to 16.2 per cent in 1981, from 16.2 to 26.3 percent in 1982 and averaged 24.4 per cent in January and February of this year. We simply cannot afford to "treat for treatment's sake" when analysis indicates that Rockford Area industry would be required to spend 8 to 10 million dollars for capital equipment, and incur total annual costs of approximately 5 million dollars if National Categorical Standards are imposed. We would rather spend this money for product development and productivity improvement.

We are also concerned about the economic impact on small businesses if the National Categorical Standards are imposed. Small companies simply do not have the resources for the purchase and installation of expensive equipment, neither can they afford the additional total annual costs for operating the equipment.

We urge the speedy adoption of this Bill and commend Senators Chafee and Randolph for this "common sense" approach toward achieving the goals of the Clean Water Act.

This concludes our statement.

Thank you.

II

98TH CONGRESS
1ST SESSION

S. 431

To amend the Clean Water Act, as amended, to authorize funds for fiscal years 1983, 1984, 1985, 1986, and 1987, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 3 (legislative day, JANUARY 25), 1983

Mr. CHAFEE (for himself and Mr. RANDOLPH) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To amend the Clean Water Act, as amended, to authorize funds for fiscal years 1983, 1984, 1985, 1986, and 1987, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "Clean Water Act Amendments of 1983".

AUTHORIZATION

SEC. 2. (a) Section 104(u)(1) of the Clean Water Act is amended by inserting immediately following "1982" the phrase ", and not to exceed $22,770,000 per fiscal year for

the fiscal years ending September 30, 1983, September 30, 1984, September 30, 1985, September 30, 1986, and September 30, 1987".

(b) Section 104(u)(2) of the Clean Water Act is amended by inserting immediately following "1982" the phrase ", and not to exceed $3,000,000 per fiscal year for the fiscal years ending September 30, 1983, September 30, 1984, September 30, 1985, September 30, 1986, and September 30, 1987".

(c) Section 104(u)(3) of the Clean Water Act is amended by striking "and" after "1981," and by inserting immediately following "1982" the phrase ", and not to exceed $1,500,000 per fiscal year for the fiscal years ending September 30, 1983, September 30, 1984, September 30, 1985, September 30, 1986, and September 30, 1987".

(d) Section 106(a)(2) of the Clean Water Act is amended by striking "and" after "1981" and inserting in lieu thereof a comma and by inserting ", 1983, 1984, 1985, 1986, and 1987" immediately following "1982".

(e) Section 112(c) of the Clean Water Act is amended by striking "and" after "1981," and inserting immediately following "1982" the phrase ", and $7,000,000 per fiscal year for the fiscal years ending September 30, 1983, September 30, 1984, September 30, 1985, September 30, 1986, and September 30, 1987".

(f) Section 314(c)(2) of the Clean Water Act is amended by striking "and" after "1981," and inserting immediately following "1982" the phrase ", and $30,000,000 per fiscal year for fiscal years 1983, 1984, 1985, 1986, and 1987".

(g) Section 517 of the Clean Water Act is amended by striking "and" after "1981," and inserting immediately following "1982" the phrase ", and $160,000,000 per fiscal year for the fiscal years ending September 30, 1983, September 30, 1984, September 30, 1985, September 30, 1986, and September 30, 1987".

CHESAPEAKE AND NARRAGANSETT BAYS

SEC. 3. Title I of the Clean Water Act is amended by adding at the end thereof the following new section:

"CHESAPEAKE AND NARRAGANSETT BAYS

"SEC. 117. (a) The Administrator shall, at the request of the Governor of a State affected by the interstate management plan developed pursuant to the Chesapeake Bay program, make a grant for the purpose of implementing the management mechanisms contained in such plan if such State has, within one year after the date of enactment of the Clean Water Act Amendments of 1983, approved and committed to implement all or substantially all aspects of such plan.

"(b) Federal grants under subsection (a) of this section shall not exceed 55 per centum of the costs of implementing the interstate management plan in any year and shall not be

made to any State for any fiscal year when the expenditure of non-Federal funds by such State is less than 45 per centum of the costs of implementing the interstate management plan during such fiscal year.

"(c) The Administrator shall continue the Chesapeake Bay program to:

"(1) continue to assess the relationship between point and nonpoint source pollution and the impact of such pollution on water quality; and

"(2) do further research on the impact of pollutant loadings, particularly nutrients, on the fisheries resources of the bay. Special attention shall be given to the striped bass.

"(d) The Administrator shall immediately begin to assess the principal factors having an adverse effect on the environmental quality of the Narragansett Bay, as perceived by both scientists and users, and to direct and coordinate, subsequent to a review of presently ongoing research, research and abatement programs that will most efficiently address those factors. The Administrator shall also: analyze all environmental sampling data presently being collected on the Narragansett Bay and suggest and undertake methods for improving such data collection; establish a continuing capacity for collecting, storing, analyzing, and disseminating such data; institute a sampling program where deficiencies are

found to exist in present sampling programs; determine what units of government have management responsibility for the environmental quality of the bay and define how much management responsibility can best be structured so that communication and coordination can be improved not only as between the respective units of government but also between those units and research and educational institutions, and concerned groups and individuals on the bay.

"(e) There are hereby authorized to be appropriated the following sums, to remain available until expended, to carry out the purposes of this section:

"(1) $10,000,000 per fiscal year for the fiscal years ending September 30, 1984, September 30, 1985, September 30, 1986, and September 30, 1987 for grants to States under subsection (a);

"(2) $3,000,000 per fiscal year for the fiscal years ending September 30, 1983, September 30, 1984, September 30, 1985, September 30, 1986, and September 30, 1987 to carry out subsection (c); and

"(3) $1,500,000 per fiscal year for the fiscal years ending September 30, 1983, September 30, 1984, September 30, 1985, September 30, 1986, and September 30, 1987 to carry out subsection (d).".

COMPLIANCE DATES

SEC. 4. (a) Section 301(b)(2)(C) of the Clean Water Act is amended by striking "not later than July 1, 1984," and inserting immediately after "of this paragraph" the following: "not later than three years after the date such limitations are established, or not later than three years after January 1, 1983, whichever is later, but in no case later than July 1, 1987".

(b) Section 301(b)(2)(E) of the Clean Water Act is amended by striking "July 1, 1984" and inserting in lieu thereof "July 1, 1987".

(c) Section 301(b)(2)(F) of the Clean Water Act is amended by striking "July 1, 1984" and inserting in lieu thereof "three years after January 1, 1983".

OCEAN WAIVER

SEC. 5. (a) Section 301(h)(5) is amended by inserting "the applicant is in compliance with" immediately before "all applicable" and by striking "will be enforced".

(b) Section 301(h)(7) is amended by striking the period immediately after "the permit" and inserting in lieu thereof a semicolon.

(c) Section 301(h) is amended by adding immediately after paragraph (7) the following new paragraph:

"(8) the applicant is currently discharging effluent which has received primary physical and other treatment to control pathogens.".

WATER QUALITY STANDARDS

SEC. 6. (a) Section 303(c)(2) of the Clean Water Act is amended by inserting "maintain as a minimum use the designated use existing on January 1, 1983," immediately following "to protect the public health or welfare,".

(b) Section 303(c)(4) of the Clean Water Act is amended by inserting at the end thereof "Any revised or new standard proposed or promulgated under this paragraph shall be such as to protect the public health or welfare, maintain as a minimum use the designated use existing on January 1, 1983, enhance the quality of water and serve the purpose of this Act.".

PRETREATMENT

SEC. 7. (a) Section 304(g) of the Clean Water Act is amended by inserting at the end thereof the following new paragraph:

"(3) For the purpose of carrying out section 307(e) of this Act, the Administrator shall publish, within sixty days after the date of enactment of the Clean Water Act Amendments of 1983—

"(A) a listing of all pollutants covered by categorical pretreatment standards issued, or expected to be issued, under this Act;

"(B) guidelines on the nature, extent, and frequency of monitoring necessary to comply with section 307(e)(3)(D) of this Act; and

"(C) a determination, for each pollutant listed under this paragraph, whether applicants shall be required to develop and submit numerical limits under section 307(e)(3)(A) of this Act as substitutes for categorical pretreatment standards. The Administrator shall require numerical limits whenever the amount and concentration of a pollutant introduced by sources into publicly owned treatment works interferes with, passes through or otherwise is incompatible with such works.".

(b) Section 307 of the Clean Water Act is amended by inserting at the end thereof the following new subsection:

"(e)(1) Notwithstanding subsection (d) of this section, the Administrator, or a State with a program approved under section 402(b) of this Act, may, after notice and opportunity for public hearing, modify any permit issued under section 402 for a publicly owned treatment works to establish and implement an alternative local pretreatment system in accordance with this subsection.

"(2) PREAPPLICATION.—

"(A) within one hundred and twenty days after the date of enactment of the Clean Water Act Amendments of 1983, the owner or operator of any treatment works intending to apply for a permit modification under this subsection shall file with the Administrator a letter of intent and supporting documentation demonstrating that:

"(i) such works is in compliance with all requirements of section 402(b)(8) of this Act;

"(ii) such works is in compliance with applicable effluent limitations under section 301(b)(1)(B) and (b)(1)(C); and

"(iii) the owner or operator has or will have sufficient funds, equipment, and personnel to comply with and, together with all other necessary agencies or persons, will comply with a specific schedule of actions to satisfy the conditions prescribed in paragraph (3) of this subsection as expeditiously as possible but in no case later than two years from the date of such letter.

"(B) The Administrator, or a State with a program approved under Section 402(b) of this Act, may, upon review of a letter of intent submitted by the owner or operator of any treatment works in accord-

ance with subparagraph (A), determine to stay for the period of an approved schedule of actions not to exceed two years from the date of such letter the applicability of categorical pretreatment standards for sources introducing pollutants into such treatment works.

"(C) For purposes of sections 309 and 505 of this Act, each requirement contained in an approved schedule of actions shall be considered a limitation.

"(3) APPLICATION.—Following submission of a letter of intent under paragraph (2)(A), the owner or operator of a treatment works may apply, in accordance with an approved schedule of actions, for a permit modification to establish and implement an alternative local pretreatment system. The application shall specify the pollutants for which a modification is requested and shall demonstrate to the satisfaction of the Administrator, or a State with a program approved under section 402(b) of this Act, that:

"(A) The applicant has in place an enforceable system of local pretreatment requirements comprehensive enough to effectively control the introduction into such works of pollutants that may interfere with, pass through, or otherwise be incompatible with such works. If the Administrator determines pursuant to section 304(g)(3)(C) that numerical limits shall be required for any pollutant introduced into such works, such local

requirements shall consist of numerical limits on the amounts and concentrations of such pollutants.

"(B) The words is in compliance with existing or proposed numerical effluent limitations applicable to each pollutant for which the application is submitted, and that such limitations prevent the discharge of those pollutants in amounts or concentrations that would interfere with the attainment or maintenance of designated uses for the receiving water body. Designated uses existing on January 1, 1983, shall at a minimum be maintained. Numerical effluent limitations may be derived from existing water quality standards or may be developed specifically for the purposes of the application.

"(C) The owner or operator has, and will maintain, adequate legal authority and technical and administrative capability to monitor and enforce compliance with all requirements of the modified permit.

"(D) The owner or operator has designed and will carry out an adequate sampling and monitoring program to insure continued compliance with all requirements of the modified permit, including periodic monitoring and at least annual reporting to the Administrator or the State regarding compliance with the require-

ments and limitations specified in subparagraphs (A) and (B) of this paragraph.

"(E) The ability of the owner or operator to safely use or dispose of sludge resulting from operation of the works will not be impaired during the life of the permit, as modified.

"(4) APPROVAL OF APPLICATION.—Not later than the sixtieth day after the date of the receipt of an application under this subsection, the Administrator or, if appropriate, the State shall determine whether such application is granted. If an application under this subsection is granted, the permit shall be modified to incorporate each requirement, limitation, program and condition specified in (or pursuant to) subparagraphs (3)(A) through (3)(e) of this subsection, and each modification shall be subject to the provisions of section 309(f) and 505(a)(1)(A) of this Act.

"(5) DENIAL OF APPLICATION.—If an application under this subsection is denied, the Administrator or, if appropriate, the State, shall notify the applicant, who in turn shall promptly notify each affected source. Each such source shall immediately thereafter be subject to applicable categorical standards, and shall achieve compliance in the shortest possible time but in no case later than the time specified pursuant to subsection (b)(1) of this section.

"(6) SUPPLEMENTAL APPLICATIONS.—If the Administrator issues categorical pretreatment standards after a permit has been modified under this subsection and such standards regulate any pollutant not covered by such modification, the owner or operator may submit a supplemental letter of intent and application specifically addressing those additional pollutants. A supplemental letter of intent shall be filed not later than ninety days following the effective date of such standards, and a supplemental application shall be made not later that two hundred seventy days thereafter. The Administrator or, if appropriate, the State shall consider any supplemental letters of intent and applications in accordance with paragraphs (1) through (5) of this subsection.".

(c) Section 309(f) of the Clean Water Act is amended by inserting "or (e)" immediately after "in violation of subsection (d)".

(d) Section 402 of the Clean Water Act is amended by adding at the end thereof the following new subsection:

"(m) In any case where a discharger of conventional pollutants identified pursuant to section 304(b)(4) of this Act is in compliance with all applicable requirements of local pretreatment programs approved under subsection (b)(8) of this section as a substitute for municipal treatment adequate to meet the requirements of a permit issued under this section for a treatment works (as defined in section 212 of this Act)

which is publicly owned, the Administrator shall not require, as a condition of a permit under this section, pretreatment of such conventional pollutants by such dischargers. Nothing in this subsection shall be construed to limit or otherwise affect the authority of the Administrator under section 307 and 309 of this Act or of State and local authorities under sections 307(b)(4) and 510 of this Act, to relieve such treatment works of the responsibility to meet requirements established under this Act, or to preclude such works from pursuing whatever other options are available to comply with permits issued under this section.".

(e) Section 505(f) of the Clean Water Act is amended by striking out "or pretreatment standards" and inserting in lieu thereof "pretreatment standards or alternative local pretreatment system".

CIVIL PENALITY

SEC. 8. Section 309(d) of the Clean Water Act is amended by striking "$10,000" and inserting in lieu thereof "$25,000".

PARTIAL NPDES PROGRAM APPROVAL

SEC. 9. (a) Section 402(b) of the Clean Water Act is amended by inserting the following after the first full sentence: "In the event the Governor submits a plan to administer part of a permit program, the Administrator may approve such submission upon a showing that—

"(1) the plan provides for administration of: (A) one or more major components of a permit program, or (B) one or more discharge categories such as Federal facilities, municipal or industrial categories, or any other category of discharges which represents a major part of the permit program in the State; and

"(2)(A) in the case of a plan providing for administration of one or more components of a permit program, the plan provides for and the State agrees to make all reasonable efforts to obtain full Administration of the permit program by a specified future date not to exceed five years from submission of the State's initial plan; or (B) in the case of a plan providing for administration of one or more discharge categories, the plan covers all categories of discharges under the jurisdiction of the State agency or department responsible for administering the plan and represents a complete permit program for all categories of discharges contained in the plan. A complete permit program means one for which adequate authority exists to carry out each of the activities listed in paragraphs (1) through (9) below.".

(b) Section 402(c) of the Clean Water Act is amended by striking "as to those navigable waters" and inserting in lieu thereof "as to those activities and discharges".

AWARD OF FEES

SEC. 10. Section 509(b) of the Clean Water Act is amended by adding at the end thereof the following new paragraph:

"(3) In any judicial proceeding under this subsection, the court may award costs of litigation (including reasonable attorney and expert witness fees) to a prevailing or substantially prevailing party whenever it determines that such award is appropriate.".

REPORTS TO CONGRESS

SEC. 11. Section 516 of the Clean Water Act is amended by adding at the end thereof the following new subsections:

"(f) The Administrator shall, not later than two years after the date of the enactment of the Clean Water Act Amendments of 1983 and not later than five years after the date of promulgation of pretreatment standards under section 307(b)(1) of this Act, submit reports to the Congress concerning hazardous wastes identified or listed under section 3001 of the Solid Waste Disposal Act which are excluded from regulation pursuant to subtitle C of the Solid Waste Disposal Act under regulations exempting mixtures of domestic sewage and other wastes that pass through a sewer system to a publicly owned treatment works for treatment. Such report shall specify the types and quantities of such hazard-

ous wastes which are exempted pursuant to such regulations and shall include recommendations respecting whether or not other provisions of law applicable to such mixtures are adequate to protect human health and the environment from the hazards associated with such wastes or whether regulation of such mixtures under subtitle C of the Solid Waste Disposal Act is necessary for such purpose.

"(g) The Administrator shall, in consultation with appropriate local, State, and Federal agencies, public and private organizations, and interested individuals, conduct a study of the effects and methods of control of pollution from nonpoint sources and report the results of such study to the Congress not later than one year after the date of the enactment of the Clean Water Act Amendments of 1983.".

II

98TH CONGRESS
1ST SESSION

S. 432

To amend the Clean Water Act to extend the 1984 compliance date for certain recently established requirements.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 3 (legislative day, JANUARY 25), 1983

Mr. RANDOLPH introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To amend the Clean Water Act to extend the 1984 compliance date for certain recently established requirements.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Clean Water Compliance Date Extension Act of 1983".

SEC. 2. Section 301 of the Clean Water Act is amended by adding the following new subsection:

"(m) Notwithstanding any other provision of this Act, the time for compliance with (1) an effluent limitation under subsection (b)(2) of this section, (2) an effluent limitation under subsection (b)(1)(A)(i) of this section promulgated after

January 1, 1982, or (3) an effluent limitation in accordance with subsection (b)(1)(A)(i), (b)(2)(A)(i), or (b)(2)(E) established only on the basis of section 402(a)(1) in a permit issued after January 1, 1982, may be extended to be not later than forty-two months after the date of enactment of this subsection, or not later than thirty-six months after the date of promulgation of the appropriate effluent guideline or issuance of a permit, whichever is later.".

EXTENDING AND AMENDING THE CLEAN WATER ACT

THURSDAY, APRIL 7, 1983

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION,
Washington, D.C.

The subcommittee met at 10:10 a.m., in room SD–406, Hon. John H. Chafee (chairman of the subcommittee) presiding.

Present: Senators Stafford, Chafee, and Randolph.

Senator CHAFEE. I want to welcome everyone here today for the second day of hearings on the reauthorization of the Clean Water Act. Today the first panel will deal with water-quality standards. If that panel would come forward—Mr. Banks, Mr. Glover, Mr. Ledbetter, Mr. Zentner, and Mr. Gibson. Why don't you line up in that order, starting with Mr. Banks over there.

We welcome the distinguished chairman of the full committee. I have no statement to start the day with, but, Senator Stafford, if you have any comments you wish to make, we would certainly welcome them.

Senator STAFFORD. Thank you very much, Mr. Chairman. I do not have an opening statement. I do consider this to be a very important hearing. In fact, all these hearings on the Clean Water Act are important. I am trying to provide as much of my time as I can to hear the witnesses.

Senator CHAFEE. Thank you very much.

We have five witnesses in this panel. If you would restrict your oral statements to about 6 minutes, your prepared statements will go into the record. We will start with Mr. Banks.

STATEMENT OF J. TAYLOR BANKS, ESQ., SENIOR STAFF ATTORNEY, NATURAL RESOURCES DEFENSE COUNCIL

Mr. BANKS. Thank you, Mr. Chairman, and good morning.

This discussion centers on what we think is the very important question of water-quality standards and, unfortunately, the issue arises due to the EPA's recent regulatory actions affecting long-standing policies under the act.

Mr. Chairman, you and Senator Randolph have introduced legislation which in many ways reaffirms the desire of most Americans that Congress retain a strong Clean Water Act. We think your bill's provision on water quality standards is an appropriately cautious response to the dangers inherent in EPA's recent regulatory proposals.

NRDC and other environmental organizations have actively opposed the new directions outlined by the Agency for water-quality standards. We regard EPA's proposal as perhaps the most important and most damaging water quality action the Agency has undertaken in the last 2 years.

In our formal comments submitted to the Agency, we have explained why the proposal is an unlawful and unwise regulatory action. The issue facing Congress is more fundamental, however, since EPA's proposal presumes to alter the national objectives established by the act. It is your responsibility, not EPA's, to establish national policies for clean water; we are encouraged by your initiative and trust that through these hearings the committee will build a solid foundation on which to move forward.

On a related issue, we are asking the committee to consider a new initiative requiring EPA to begin grappling with the next round of toxic pollution controls for point sources. Once BAT is in place, EPA needs to determine where technology controls have not been sufficient to protect water quality and human health from toxic hazards, and then to develop controls "beyond BAT" on a site-specific basis. These toxic "hot spot" strategies could be built on water-quality standards or on other provisions of the act, but the first step must be to determine where and when such controls are needed.

Our position on water quality standards is straightforward. Existing EPA regulations are a logical and legal extension of their enabling legislation, and they should remain in effect. But in order to avoid abdicating these policy decisions to EPA, we urge you to clarify the statute by incorporating the major points of those rules into the law.

The principal problems with EPA's proposal are these:

First, EPA will not require the States to identify toxic problems and add numerical criteria to their standards. Only half the States have any numerical standards for toxics, and those that do cover only a handful of heavy metals, nowhere near the chemicals covered by BAT regs.

Second, EPA's proposal eliminates provisions from the existing regulations that require States to upgrade their water-quality standards whenever actual existing uses of water are higher than the designated uses.

Third, EPA has introduced new language into the regulations, such as "modification" and "reclassification" of water-quality standards. That only disguises the systems' bias toward changes from higher, or more beneficial uses, to lower, less desirable ones. Since most water bodies in this country currently are designated for fishable/swimmable water quality, in reality there is only one direction for most of these so-called modifications to take: in common parlance, it is called downgrading.

Fourth, EPA proposes to all but abandon protection for clean, ecologically valuable water resources. Because of the Agency's unwarranted focus on water uses instead of quality, the proposal would permit deterioriation of high-quality waters to the point where the supposed use is affected. Moreover, EPA reasons that if the use remains the same, no public participation is necessary in

advance of decisions to allow additional pollution of these high-quality waters.

As I mentioned at the outset, policy changes as sweeping as this are the province of Congress, not the EPA bureaucracy. While we are aware that Senate and House leaders have called on EPA to withdraw this regulatory proposal, such requests are often poor substitutes for congressional action that precludes the Agency's proposed course and substitutes responsible national policies.

Mr. Chairman, your proposed amendment to maintain, at a minimum, those designated uses in place as of January 1, 1983, is a welcome prelude to congressional action on water quality standards. We support this beginning and recommend the following additions to strengthen your bill:

To begin with, Congress should supplement the act with an explicit, mandatory antidegradation policy. The policy should require three things: First, it should require maintenance of the water quality necessary to support actual instream uses. If a river is safe enough to swim in, it should be kept that way. Second, the policy should maintain water quality that exceeds current standards unless, after full public participation, the State demonstrates that lower water quality is justified as a result of adverse impacts from development that is essential to the economic or social well-being of the area; that there are no feasible alternatives to such impacts; and that all practical measures will be taken to minimize those impacts. Third, the policy should provide absolute protection of water quality in waters designated as outstanding national resources.

Next, the Congress should make it clear in the act that States must upgrade their use designations whenever existing water quality standards are less protective than would be required to preserve the uses presently being attained.

And finally, Congress should direct the States to systematically consider the need to add numerical criteria for toxic pollutants in their current review and revision of standards, and then to add such criteria wherever necessary.

In my written statement we have made several additional recommendations. Rather than discuss them fully here, I would like to conclude by addressing an important and related issue.

We urge the committee to consider new measures that would provide additional, site-specific toxic controls wherever BAT proves inadequate to protect water quality. What is required is merely an EPA study to determine where such controls are needed, followed by a mandate to utilize existing statutory mechanisms in devising the appropriate standards as promptly as possible. The question is whether EPA eventually will address toxic effects and water quality after BAT has been determined. In the years ahead, EPA should be able to predict where BAT will not be sufficient. These predictions should then furnish a means of focusing on the most likely toxic problems and directing what scientific capability exists toward deciding how much more protection is required.

Mr. Chairman, after pursuing this issue through the courts for 7 years, the bottom line seems to be this: Yes, it is very likely that serious toxic problems will remain after BAT; no, EPA has not accurately determined where those areas are located. And unless Congress insists on it, EPA has stated that it will not even move

toward identifying the hot spots, let alone developing the needed controls.

Our concern now is whether Congress will require EPA to move ahead. From our perspective, the question is, Why wouldn't Congress want to locate the remaining toxic problems and do something about them?

We have developed specific legislative proposals to carry out such a program and would be happy to submit them for your consideration.

That concludes my statement, Mr. Chairman. Thank you.

Senator CHAFEE. Thank you very much, Mr. Banks.

Mr. Glover?

STATEMENT OF RODNEY C. GLOVER, MANAGER, ENVIRONMENTAL TECHNOLOGY AND REGULATORY AFFAIRS, PROCTER & GAMBLE CORP.

Mr. GLOVER. Thank you, Mr. Chairman. I am Rod Glover, manager of Environmental Technology and Regulatory Affairs for the Procter & Gamble Corp. in Cincinnati, Ohio. I appreciate the invitation to testify for the American Paper Institute and the National Forest Products Association.

After reviewing the Clean Water Act, our associations have concluded that only modest changes to the act are indicated. Mr. Chairman, we agree with your opening statements yesterday: the act is basically sound. We support the thrust, as well as a number of provisions, of S. 431. With the chairman's permission, I will submit my statement for the record.

Senator CHAFEE. That would be fine.

Mr. GLOVER. For the purposes of this panel, I will address the water quality standards program.

Section 6 of S. 431 amends the act to require that States maintain, as a minimum stream use, the designated use in effect on January 1, 1983. This reflects the Senate's concern with EPA's October 1982 proposal to revise the State water quality standards regulations.

Our interest in both proposals involves the flexibility required by the States to insure appropriate water-quality standards.

As you know, water quality standards consist of designated uses and numerical criteria to reflect those uses.

Designated uses should be consistent with naturally occurring local conditions. There are, for example, some streams flowing from swamps that have never had a consistently high dissolved oxygen level. States must have the latitude to reflect such conditions—as well as others, such as seasonal variations.

Similarly, numerical criteria must be derived to reflect the needs of the naturally occurring aquatic community. That is, the aquatic community that could normally be expected to exist in a specific stream in the absence of pollution. For example, numerical criteria must be specified to account for the differing needs of trout in Michigan and smallmouthed bass in Georgia.

Neither we nor EPA support downgrading existing stream uses, or eliminating designated uses that are feasible to attain. Specifically, designated uses should not be removed to facilitate industrial

expansions, nor should we cease to strive for improvement where it is feasible to achieve higher uses.

We understand the controversy caused by some of the language in EPA's proposal. Valid concerns were raised during the comment period. These concerns should be resolved during the rulemaking.

There are, however, problems with the existing water quality standards program that must be addressed. In the early 1970's, EPA concentrated its efforts on the technology based effluent limits, the primary control method under the 1972 act, and gave second priority to the water quality standards program. There were limited stream data available at that time, and many States had little experience in setting stream standards. Compounding the problem, EPA often provided inflexible directions on stream use designations and on numerical water quality criteria.

The resulting water quality standards, often adopted inappropriately and in haste, in some cases, will present serious problems.

States now have a greatly expanded data base and more experience. They are in a position to review and revise inappropriate standards in a technically sound fashion.

With the completion of technology based requirements in the near future, it is important that the water quality standards which will determine additional control requirements are technically sound.

Assuring the technical credibility of the standards program is the reason for EPA's proposal, and for section 6 of S. 431. Both provide the needed opportunity to discuss the future of the program.

EPA's proposal is an attempt to provide additional flexibility in developing site-specific standards. It would allow the States to modify past standards developed with inadequate information. EPA's proposal does not alter technology based standards for BPT, BCT, BAT, or new sources. EPA does not propose downgrading existing stream uses to accommodate growth.

API/NFPA have two primary concerns with section 6 of S. 431. First, the amendment eliminates needed flexibility for the States to modify inappropriate designated uses that were developed with insufficient site-specific stream data. These designated uses may be unattainable, even after the application of technology based controls, nonpoint source BMP's, and secondary treatment. Inappropriate designations can force incorrect and costly regulatory decisions, such as imposing advanced waste treatment on certain municipalities without any real benefit to the environment.

Second, by freezing designated uses in place, Congress would remove all administrative flexibility and would assume the lead role in the States' standards-setting process. This could make Congress the forum, on a continuing basis, for entertaining suggested changes to each State water quality standard.

Additional concerns with the amendment are provided in our statement. In our view, congressional action should commence only after EPA has had an opportunity to analyze the comments on the October 29 proposal, make the necessary changes, and promulgate final rules.

In conclusion, API/NFPA generally support a number of provisions of S. 431, including: multiple year reauthorizations, BAT/BCT compliance deadline extension, simplification of the pretreatment

program, partial delegation of the NPDES program, and assessing current nonpoint source pollution control efforts. We are also pleased to note that S. 431 does not include an amendment dealing with Federal common law.

Thank you, Mr. Chairman.

Senator CHAFEE. Thank you very much. I think those suggestions you made, particularly about some flexibility that we should provide in order that an exception could be obtained from freezing of the designated uses is a good one, and I think we will do that. Certainly that will come up in the markup.

Mr. GLOVER. Thank you, sir.

Senator CHAFEE. Thank you very much, Mr. Glover.

Mr. Ledbetter?

STATEMENT OF J. LEONARD LEDBETTER, DIRECTOR, GEORGIA ENVIRONMENTAL PROTECTION DIVISION

Mr. LEDBETTER. Thank you, Mr. Chairman. It is a pleasure to appear before your committee. We appreciate the commitment of this committee to environmental——

Senator CHAFEE. Excuse me, Mr. Ledbetter, did you submit copies of your testimony?

Mr. LEDBETTER. Yes.

Senator CHAFEE. All right, won't you proceed.

Mr. LEDBETTER. Thank you, Mr. Chairman.

We appreciate the strong support that we have seen from this subcommittee and from the full committee for the protection of the envinonment and a strong Clean Water Act. We also appreciate the staff that you have in place with this subcommittee and the fact that they provide us with an opportunity to exchange ideas and participate in the process.

As professional managers of the State water programs, the Association of State and Interstate Water Pollution Control Administrators [ASIWPCA] is committed to the environmental objectives set forth in the Clean Water Act. Our association is a national, nonpartisan organization of State officials who, on a daily basis, implement the Clean Water Act. We now have more than 10 years' experience implementing the national water quality program. And I do represent the association here in presenting this statement to your subcommittee. Our statement was prepared with the assistance of our members and our excellent staff.

We provided you with a full statement. We are concerned about many issues on the Clean Water Act, so I will not get into those—they are set forth in our statement—and I would like to turn to the subject you have asked us to speak to today, which was water-quality standards.

As with most groups, our association has developed a certain amount of rhetoric on the subject of water quality standards. So as a member of a State program confronted with the task of getting the mission accomplished, I would like to simplify for you this morning our basic concerns.

I have discussed the subject of water quality standards with over 30 State officials around the country in recent months. In all cases, I have heard strong support for the Clean Water Act and for strong

water quality standards. So, you might ask, Well, then, why have we recommended changes to the water standard regulations?

Senator CHAFEE. I was waiting for you to drop the other shoe. You didn't come way up here from Georgia just to say the act was perfect.

Mr. LEDBETTER. We do think we can make some improvement, Mr. Chairman, and I would like to set forth very briefly why we have recommended some changes to the regulation.

First of all, we have found inconsistencies in the administration under the rules from region to region. We have also recognized that many of the States, including my own State of Georgia, were forced to designate fishable/swimmable waters in many cases early in the implementation of the Clean Water Act without sufficient information and without the data base we needed. While the criteria were imposed in many cases, we now know that the actual situation is different than what we were forced to put in the criteria and the standard. In my own State we have trout streams in the northern part of the State, small streams of cold water, high dissolved oxygen, and no problem in meeting the standard. In the southern part of the State, we have the Okefenokee Swamp and wetlands. We have swampy streams. We find warm water in the summertime. We see low dissolved oxygen, low pH, and the criteria just do not fit that we were forced to impose on the communities.

Now, the dilemma is the publicly owned treatment works. We see industry in our State having complied with the requirements of the Clean Water Act. They have complied with the NPDES program, meeting the requirements imposed by the Clean Water Act. That is not the case with publicly owned treatment works. We find many of these small communities discharge into small streams that have little or no flow under drought conditions, and therefore we are imposing on those small communities advanced treatment. Now Congress, along with the States and others, have expressed concern about imposing costly advanced treatment on these small communities. We all recognize it will be a long-term, costly operation. We will get sporadic operational and maintenance from many of those small communities. We are very concerned we will see limited on no detectable benefits from having imposed this level of treatment for these smaller communities on these smaller streams.

With those issues before us, we proceeded in 1979 in our organization to establish a task force and, working with the Carter administration, we proposed to review the water quality standards regulation and develop some proposed improvement, and over a 2-year period we did that. The association unanimously adopted a position in August 1981 which recommended some changes. In January 1982 we developed a statement that is summarized in what I have provided to you that set forth some of our recommendations.

Since the language in Senate bill 431 freezes designated uses as of January 1, 1983, the requirement or mandate would not provide some of the modifications that we have recommended or consider necessary, as you heard another member of the panel already address. Now, if Congress does decide to address designated uses in amendments to the Clean Water Act, we do urge you to provide language that would allow modification or exceptions where these

earlier designated uses were based on incomplete or inaccurate information that is now forcing us to impose unrealistic requirements on many of our smaller communities.

Senator CHAFEE. Yes, we agree with that.

Mr. LEDBETTER. Thank you, sir.

At the same time, a review of States' positions and comments on EPA's proposed water quality standard regulation will show that while almost every State concurred with the need for some changes and improvements to existing regulations, that our recommendations and comments in essentially every case also recommend some changes and improvements from those proposed regulations. In other words, we see some key changes that need to be made, and I would like to summarize those.

One would be to continue the existing strong anti-degradation policy to assure momentum of the program and continued protection. Second, to delete from the proposed regs the material on cost-benefit assessment and use attainability. Third, to continue a strong technology based effluent requirement. Fourth, require uniform and equitable U.S. EPA review procedures among all regions for use designations. Fifth, to recognize the major program before us throughout the country, and that is correcting the water quality problems related to our publicly owned treatment works, especially many of our smaller communities throughout the country on smaller streams. And, finally, as you will note in our statement, we are encouraging the use of bioassays and biomonitoring to identify toxicity.

We, along with many other persons, as you have already heard from the panel, are concerned about the issue of toxicity. We do not think that the present technology based effluent requirements and present water quality standards address that issue. Our association has recently developed a recommendation for national policy which defines toxicity elimination and management strategy. This concept would complement the use of the technology based effluent standards and the water quality standards. We see this as a concept that is needed in addition to those other two management tools so that we can identify those areas of stream, segments of streams, where we have toxicity problems. Then by using bioassay and biomonitoring procedures, we could address the impact on those particular water uses and the in-stream uses. We could then develop requirements that could be used in the NPDES program to bring about compliance.

In closing, we would like to note that we are also encouraged by the December 1982 Lou Harris & Associates report and their finding that a majority of the public now believes that the States enforce the Clean Water Act and that they are doing that. We appreciate that vote of confidence. We are convinced this is the case Congress had in mind when you enacted the Clean Water Act in 1972, in developing a partnership between the Federal and State governments, and we are committed to going forward with that. And we appreciate your support of a strong clean water program, Mr. Chairman.

Thank you.

Senator CHAFEE. Thank you very much, Mr. Ledbetter.

Was that point you are making the same as Mr. Banks was making when he was talking about the toxicity problems in the stream itself? Mr. Banks, were you listening to Mr. Ledbetter?

Mr. BANKS. Yes, Mr. Chairman, I was, and the objective of our recommendations is essentially the same.

Senator CHAFEE. When you say in your statement, "EPA does not concern itself with the effects of toxic pollutants in the aquatic environment," are you talking about the same thing?

Mr. BANKS. We are talking about the same problem. BAT does not even address the question of toxic conditions in the water; it simply requires the best, affordable technology. The question then is, Will EPA address toxicity after BAT is implemented, and go beyond it where necessary? The two approaches we have been discussing are somewhat different in how they would be carried out, but their target is the same.

Mr. LEDBETTER. Mr. Chairman, I agree our approach is different. One of the concerns we have is that you could spend a great deal of time and money developing the specific criteria that you would need to put in standards for toxicity, but as you look at different streams throughout the country, as I have already mentioned, you will find different effects, different pH levels, different temperatures, different conditions that will impact the toxicity of a particular parameter. So we think by going to the bioassay in which we actually use microorganisms and the aquatic community in that stream segment, we can get to the toxicity issue much faster. In my own State we are already imposing that through a condition of the NPDES permit and a condition of the reissuance of permits in recent years to industry where we suspected a problem. We have imposed that on industry. Within a certain time they will develop a bioassay, put it into place, and provide the information, while we will also be doing our own work to verify the results.

Senator CHAFEE. All right, thank you.

Mr. Zentner?

Senator RANDOLPH. I would like to make a comment.

Senator CHAFEE. Yes, Senator Randolph.

Senator RANDOLPH. Mr. Ledbetter, are you telling us, basically, that the present law is a good law, or are you saying that there needs to be more flexibility from the standpoint of the State you represent and other States?

Mr. LEDBETTER. Yes, sir, Senator, we are saying we think the act is a very good act, very strong act, and we support the principles that are set forth. Under the water quality standards program, because of the fact we had criteria and designated uses imposed several years ago and now we have developed information showing that is not the case, especially as we look at these small streams and small communities we are trying to clean up, we need some additional flexibility. By that, if I may very briefly emphasize the point I am making, we think we could in many cases maintain the designated uses fishable/swimmable. We know for a fact in many of our coastal plain streams, in your State and may other States, Virginia and on down the east coast—maybe not so much in West Virginia, but you do have a lot of small streams even in your State—that we——

Senator RANDOLPH. We are the mother of rivers, West Virginia.

Mr. LEDBETTER. Right, as we have in our State—no river flows into Georgia—so we can relate to the fact you have small streams forming in a State.

So one of the things we see is the need to have some flexibility in the criteria. We know in many streams we can have a good fishery with three parts per million of dissolved oxygen. So what I am forced to do is require the small communities to try to achieve the five, and no less than four at any time, because it was imposed on us, which then results in advanced treatment. We are not improving the fishery in that stream. That is the point we are making. We need some flexibility. We do not see a benefit to industry in our State, we do not see they would be able to back away from the Clean Water Act as a result. We do need this flexibility for our small communites.

Senator RANDOLPH. Thank you for the further clarification. It is a good, strong statement, and I agree.

Mr. LEDBETTER. Thank you, sir.

Senator CHAFEE. Senator Stafford, did you have any comment?

Senator STAFFORD. No, I assume, Mr. Chairman, you would wait until you finish the panel.

Senator CHAFEE. Mr. Zentner?

STATEMENT OF DAVID ZENTNER, CHAIRMAN, WATER RESOURCES COMMITTEE, IZAAK WALTON LEAGUE

Mr. ZENTNER. Mr. Chairman, members of the subcommittee, my name is David Zentner. As my statement indicates, I am currently chairman of the Water Resources Committee of the Izaak Walton League of America and formerly executive board chairman and president of the League. I live in Duluth, Minn. I would like to emphasize some aspects of my experience of working with clean water legislation that might be a little bit different than those that you usually hear.

In 1972, I was appointed to the Western Lake Superior Sanitary District Board in Duluth, Minnesota, and that project and resulting sanitary district put together a project resulting in a substantial cleanup of the estuaries at the western end of Lake Superior, including the St. Louis River, St. Louis Bay, with tremendous improvement in fishing, in the environmental quality of the area, and in the economic spin-off efforts for our community.

In 1974, then Governor Wendell Anderson appointed me to the Minnesota Pollution Control Board, an implementing and decision-making body, and I worked with the Clean Water Act in terms of developing the NPDES program and working with the various aspects of the construction grants program, and I have been familiar with the labor of this fine piece of legislation.

As indicated, we have a written statement submitted for the record. I would like to summarize in three specific areas that are very important to me, but before I do that I would like to, for the record, indicate my appreciation of the work of this subcommittee and specifically several individuals on it and your support for the goals of the Izaak Walton League of America in improving the stewardship of our national waters.

I would also like to echo the sentiment of Mr. Banks' Natural Resources Defense Council and complement and parallel the philosophy.

I would like to focus on the public participation process, the toxicity question, and the matter of downgrading, all pretty much embodied in the October 1982 proposed regulatory change by EPA, mentioned on several occasions in this committee.

First, in addressing the public participation aspect of the issue, I would like to point out rather than disregard public participation as an effective tool, I would like to see us improve, based on what we have learned in the last 10 years. It is my judgment that it is critical to involve public participation in meaningful and constructive review throughout the process, not just as a pro forma, bureaucratic process trying to meet the letter of the law. I would like to point out that when EPA proposes regulatory changes which would not require public participation, such as the ability of States to develop site-specific criteria, set risk levels for toxicity, conduct cost-benefit assessments, allow degradation of high quality streams, or issue variances from additional toxic controls to heavy polluters, that we really do object. We appreciate the letter from members of this committee, in opposition to those suggestions. In my experience, public participation, while painful at times, is essential and it has resulted in innovative and cost-effective environmental stewardship. I think it is necessary for us to put EPA back on the side of the American public, who have time and again indicated that they favor cleanup and are willing to pay for it.

The second issue I would like to address this morning is the matter of toxicity. It is my judgment that waterborne hazards continue to be a menace to our health. We have brought fish back in various places in Minnesota, but because of advisories against consumption, they are not edible. I was interested Sunday night to be in my basement looking at the 1983 fishing regulations from Wisconsin and Minnesota and see the extensive time devoted toward warning people of consumption of certain species, certain amounts from certain areas. So, we have brought back fish, but in many cases not for food utilization.

Progress under the law has been very substantial, but it has mostly been limited to what we call, in the vocabulary, conventional pollutants. We have yet to seriously move foward to remove the toxicity hazard. EPA's proposal of giving States permission to exempt discharges from any further control in toxicity, that may be good news for some large industrial point sources, but in my State it is bad news for commercial fishermen, for sport fishermen, for motel, gas station, and resort operators that depend on those resources, as well as the general population. I cannot emphasize enough our opposition on the matter of relaxation of toxic controls, and equally our opposition to the return to water quality uses standards versus effluent standards as proposed by EPA. A similar capacity concept espoused by some segments of our so-called sanitary engineering fraternity reeks with ignorance. As to the complexity of ecosystems and while specifically occasionally usable, is generally patently unsound, in my judgment.

Finally, I would like to touch on the issue of downgrading. EPA proposes to eliminate mandatory State review of all standards to

allow more States to downgrade or weaken water quality standards, to limit antidegradation policy to allow variances for heavy polluters, and, as I mentioned previously, from further toxic controls. What a reward for States like Minnesota that have moved ahead at least in part because of a desire to clean up and in part because of strict Federal legislation requiring us to do so. Will our environment again be held hostage to threats of industry to move jobs to States that permit more pollution? My personal experience working in well over a decade with this legislation is that achievement is usually less than objectives due to our problem with funding irregularities, complex technologies, discovery of new and serious problems, and the politics of pollution. Our achievements to date are amazing when measured against the size of and impoundments of appropriations by the executive branch of government, litigation, and the regulatory process. So, we have come a long way in a longer journey, and we must persist.

That concludes my remarks. Thank you for the opportunity to testify.

Senator CHAFEE. Thank you very much, Mr. Zentner.

Now, Mr. Gibson?

STATEMENT OF JOHN GIBSON, PACIFIC GAS & ELECTRIC CO.

Mr. GIBSON. Good morning, Mr. Chairman and members of the subcommittee, my name is John Gibson. I am an attorney for Pacific Gas & Electric Co. in San Francisco, and I am here today on behalf of the Edison Electric Institute and its 189 member companies. I am pleased to have this opportunity to present EEI's views on Senate bill 431, and I am pleased to be back before this subcommittee. Last July I testified before you on the issue of dams. At that time my colleague, Mr. Jerrell Smith, also testified about the need to streamline standards and procedures for obtaining thermal discharge variances under section 316(a). While the dams issue has now been resolved in the courts, a revised thermal variance provision is still urgently needed. We hope the subcommittee will consider this important issue along with the many other issues raised at these hearings.

I would like now to turn to the subject of my testimony, section 6 of Senate bill 431. EEI will submit a written statement for the record later, on other provisions of S. 431.

Section 6 would prohibit States from ever changing any water uses designated as of January 1, 1983. This prohibition apparently would apply to all such designated uses, whether or not attained. This proposal not only undercuts EPA's recently proposed revisions to its water quality standards regulations but also goes far beyond the restrictions in the current EPA regulations that have been in existence since 1975. We strongly oppose this amendment.

As others have stated on this, the amendment would force a State to adhere blindly to use designations made long in the past, often on the basis of insufficient information and without consideration of the costs to the public of attaining those uses.

The clearest examples of cases in which changes to designated uses should be allowed are where natural background pollutant levels or physical limitations in the water body make the uses un-

attainable. But there may also be cases in which use designations should be revised in order to allow for economic growth or expansion, which is particularly important in the case of the electric power utility industry. The site of a new powerplant may involve a choice between changing a designated use for a stream of minor importance or degrading, but not changing the use of, a more important and valuable water body. The net effect of section 6 in its present form would be to absolutely prohibit the use for powerplant siting of any stream location at which planned discharges from the plant could be accommodated only through a use redesignation, regardless of the public's need for power, regardless of whether the site was judged to be the best that could be found after considering all relevant environmental, economic and social factors, and even though the plant would have to use the best available demonstrated control technology to meet new source performance standards.

The cost of this prohibition may outweigh the benefits. For example, maintaining a cold water fishery designation suitable for trout may require construction of cooling towers for a new powerplant to be located on that stream. The costs of cooling towers, which can run as high as $75 million for a single 1,000 megawatt plant, may outweigh the benefits of maintaining the cold water fishery use. In such a case, it may make sense to change the use to a warm water fishery of equivalent social value suitable for bass. It is not clear if section 6 is intended to prohibit general use designations such as this, but it clearly should not be.

EPA's recently proposed water quality standards regulations and draft guidance documents provide a more realistic approach to national water quality planning than does section 6. EPA's proposals represent an ambitious undertaking to provide States with comprehensive procedures for setting, revising and applying water quality standards. On the whole, we find these proposals to be well-conceived and grounded on sound legal and policy considerations.

We especially support EPA's efforts to give States greater flexibility to revise and fine-tune their water quality standards in appropriate circumstances. The proposed regulations encourage States to conduct analyses to determine whether designated uses are attainable. If they are not attainable because of physical limitations or natural background levels of pollutants, States may change the uses. States may also change designated uses if they determine the benefits of attaining the uses do not bear a reasonable relationship to the costs.

EPA's proposals are consistent with section 303(c)(2) of the act which requires States, when revising water quality standards, to take into consideration the use and value of water bodies for a whole range of purposes. In addition, by giving States greater flexibility to establish and revise designated uses, EPA's proposals conform to the policy set forth in section 101 of the act to preserve and protect the primary responsibilities and rights of the States in pollution control. This policy is particularly important when applied to water quality standards, since designating the use of a particular water body is a complicated matter of social and political judgment requiring the weighing of competing goals and allocation of limited resources among competing interests, much like land-use

planning and zoning. States are in the best position to make these judgments since it is they who are most familiar with the local conditions and values.

In conclusion, Congress should not now undercut EPA's proposals or its current regulations which have been in effect since 1975 by prohibiting changes to use designations. Therefore, we urge that section 6 be deleted from the bill. In the event this amendment is adopted, however, we think it should be limited to a prohibition of changes in general use designations—for example, from fishable to industrial—which have been attained as of January 1, 1983; it should be made clear that fine-tuning within these designations, such as a change from a cold water to warm water fishery, is not prohibited; and, in any case, it should be provided to allow states to change uses where the siting of essential new energy facilities require it.

Thank you very much, Mr. Chairman.

Senator CHAFEE. Thank you very much for your testimony, Mr. Gibson. You are the first one who has said a kind word on behalf of EPA's proposed regulations.

Mr. GIBSON. I feel very lonely.

Senator CHAFEE. I think you are somewhat alone. You have greater confidence in the efficacy of the States than perhaps we do. I suppose that the reason that we passed the Clean Water Act in 1972 was the States weren't doing it. But we don't like to have all witnesses singing the same tune, and you made a different note.

Mr. GIBSON. I might say, Mr. Chairman, since 1972 there is a safety net now under the water quality standards and there is a nationwide effluent for new source performance standards so the States aren't free to stray too far from the golden path without running into these nationwide standards which provide security for us all, I think.

Senator CHAFEE. I always get nervous with this word "fine-tuning." One man's fine-tuning is another man's massive changes.

I have some questions here. We have Mr. Gibson's views, so I would ask the other members of the panel is there anything in EPA's proposed regulations that is worth saving in the judgment of those present? I think you can answer that quickly, Mr. Banks.

Mr. BANKS. No, sir, there is not.

Senator CHAFEE. I suspected that would be your answer.

Mr. Zentner?

Mr. ZENTNER. I concur with Mr. Banks, Mr. Chairman.

Senator CHAFEE. Nothing in there worth saving.

Mr. Ledbetter?

Mr. LEDBETTER. Mr. Chairman, we would recommend modification to the existing regulation. We would recommend changes to what EPA has proposed. So I think there are some points in the proposed regulations that are consistent with earlier recommendations of the States. But as I pointed out, we want a strong antidegradation program to continue. We do not propose relaxation of the best technology standards, and we do not propose to get into this business of cost assessment or the attainability of use. But there are some flexibilities that are addressed there that are needed.

Senator CHAFEE. Under section 6?

Mr. LEDBETTER. Yes.

Senator CHAFEE. Yes, that was well beaten up today, with Mr. Gibson wading in hard at the end. We will make those changes. Not all the changes you want—some changes.

If we are going to meet our technology goals, shouldn't we use the standards to continue pursuing water quality goals, and how do we do that? How about Mr. Banks.

Mr. BANKS. Mr. Chairman, I think within the next year or so we will have completed the BAT program for toxic pollutants in the sense that there will be BAT regulations on the record. It is another question whether those will be sound regulations, and I have some concern about that. But you are correct that EPA is about to complete that program. Our view is that the proper role for State water quality standards at that point is that they be revised to include toxic criteria, that is numerical criteria for the 65 toxic chemicals, so that we have benchmarks to decide whether BAT was good enough in specific water bodies. And if those benchmarks are in place, we can determine where we need to take the next step. The toxic hot spot areas around the country will be relatively easy to identify, and it will be possible to decide whether water quality standards ought to operate.

Senator CHAFEE. Isn't this a problem? We have said to industry now here are the criteria you must meet, you have your permit, and they have invested a good deal of money to meet the BAT. Then we come along and after all the technology goals have been met, we are ratcheting them upward with a further requirement based on water quality standards. Now aren't they entitled to say where does this end?

Mr. BANKS. Two responses to that, sir. In the first place, we would be ratcheting down only where we can show that BAT wasn't good enough to protect the health of the American public, and those are precisely the places where we should ratchet down regardless of how much has been spent so far.

Second, you have to look at this program historically. The 1972 act told industry they would have to meet very stringent health-based requirements for toxics. The 1977 amendments backed away from that and set up a two-step process consist of technology based requirements (BAT) to be followed by ratcheting down with water quality standards where we can show it is necessary. So industry has already been given a release from what Congress decided in 1972 should be the most stringent controls in the act, and that relief took the form of this two-step process.

Senator CHAFEE. I missed that. What was the relief we gave them in the 1977 act?

Mr. BANKS. In the 1977 act, Congress told EPA not to go out there and try to determine safe levels for toxic pollutants, which would be very, very expensive for industry to meet and very difficult to determine. Instead, EPA merely would require affordable technology based controls, and Congress realized we may not get all the way to health and safety protection through technology.

Senator CHAFEE. Through BAT?

Mr. BANKS. Through BAT. So after BAT is implemented—after we know how much improvement BAT got us—we can then make judgments very specifically on individual water bodies about where we need to take additional steps to protect the public's health.

Senator CHAFEE. These are your so-called hot spots?

Mr. BANKS. Precisely.

Senator CHAFEE. What do you say about that, Mr. Gibson?

Mr. GIBSON. I think he is probably right, that there may be some hot spots after application of BAT which should be dealt with. If I am not mistaken, I think that can be dealt with now under section 302 of the act, where the more stringent limitations can be required beyond the nationally applicable limitations where they are called for under certain circumstances.

Senator CHAFEE. Senator Stafford?

Senator STAFFORD. Thank you very much, Mr. Chairman.

Mr. Glover, noting that you were speaking for the timber products companies, I am going very briefly outside the agenda this morning and inquire concerning another activity of this committee, concerning what we call popularly acid rain, and inquire if your industry has been gathering data as to the impact of acid rain on timber crops.

This has really put you on notice for a later meeting.

Mr. GLOVER. It was a bit of a surprise. It is not my area of expertise, but yes, the timber products industry is very concerned with the subject of acid rain. As you are well aware, it is not only a question of sulfur dioxide emitted from facilities, but for our industry it is the potential of a very strong impact on timber resources.

Senator STAFFORD. That is exactly what I had in mind.

Mr. GLOVER. The industry is following this very closely, and we would be very pleased to have our National Council for Air and Stream Improvement give you a detailed account. To date, adverse effects have not been found in this country, but NCASI is following this subject very closely, and also are following the work being done in Europe.

Senator STAFFORD. I will not pursue that further, but at the proper time in the future we probably will be seeking advice from you. That will let Mr. Gibson know of our interest in this matter also.

Mr. GIBSON. I think our EPRI is doing some research on this.

Senator STAFFORD. Thank you.

Mr. Glover, I am worried about the ability of water quality standards to deal with the problem of toxic pollutants. I will grant you that we know more than we did 10 years ago certainly, but as I look at the system, may I suggest you can see this: There are very few numerical criteria for toxic pollutants. There have been some dramatic cuts in section 106 program cuts, drastic cuts of EPA's research budget, although we intend to rectify that, and we see various estimates that say that the development of site-specific criteria and waste allocations are very resource intensive, and we see almost every State that commented on EPA's proposals saying they don't have the resource capability to do all of the things I have suggested. Given all that, could you assure me or this subcommittee that the water quality standards system can protect against toxic pollutants and meet the goals of the act?

Mr. GLOVER. Senator, we understand your concerns and we concur with them. We certainly hope that they can be dealt with. I should point out that our industry is largely concerned with conventional pollutants. That is what Mr. Ledbetter and myself have

been discussive, using examples, involving dissolved oxygen levels. In terms of growing flexibility to the State where toxics are concerned, and I assume you are discussing chronic human toxic effects, I believe that many of the States may not have the resources to develop site-specific criteria. In the case of a few humans of the materials toxic to, there are site-specific effects; in many other toxic materials there are not. We believe that EPA will have to devote considerable time to providing the states extensive guidance in the area of toxics. Also the degree of flexibility that can be given to the States will be less for toxic, or perhaps have accurrately the burden of proof required for devictions from the Federal guidance will have to be greater. But, we do have to agree with your concern on that resources.

Senator STAFFORD. Thank you very much. I don't want to restrict comment from others if they are so inspired.

Mr. LEDBETTER. Senator, if I may, I would like to add to that, Mr. Chairman. The point is well made. One of the concerns we have about developing a lot of numerical requirements—and I am an engineer so I like to deal with numbers—but one of the problems I have had as administrator, I can develop a lot of numbers and put them in water quality standards, but when you go in the real world you have different ph's in different streams, you get the synergistic impact of all the different effluents being mixed. So we prefer to look at the approach ASIWPCA is making, and that is to develop a national policy where we add to the management tools we have through the NPDES permit program and the water quality standards program—a third policy, and that is to require bioassay and biomonitoring for those segments where we have the potential problems or we know we have problems. The advantage is that we can do that now and get on with it. We can spend a great deal of time and a great deal of money trying to develop and perfect the numbers to put into numerical numbers. Now, I am not opposed to doing that sometime out in the future as we get the expertise to do that, but you still have that synergistic element of what can happen in the stream under varying conditions when even you may be within those numbers. So, we think a requirement to do bioassays that our association has recommended is a very good improvement.

Senator STAFFORD. Thank you very much.

Mr. Banks?

Mr. BANKS. Senator, I would just like to comment on Mr. Ledbetter's remarks. We do not oppose the bioassay approach as a supplemental method for idenitifying the remaining toxics problems. We have several concerns. First, you cannot cheaply and quickly determine the potential health effects on human beings through bioassays. That would require expensive and time-consuming procedures. While they ought to be employed if they become the primary defense against toxic effects, we are going to be waiting a long time to see the results. Second, bioassays do not tell you which constituents you ought to be treating. They tell you that the entire discharge is a problem and you ought to address it in some fashion. You still have to go back and figure out what pollutants you are concerned about.

That is why we believe the criteria in State standards should be developed. Those can be developed if you solve the two kinds of problems you mentioned. One, there are not enough resources to do the job, and Congress should take a very close look at the President's budget and restore the grant funds to the States that were cut in half in the 1984 budget. Second, you can limit the number of water bodies on which you need undertake that sort of analysis by having EPA target the hot spots and only spend that kind of an intensive effort where you think it might make a difference.

Mr. ZENTNER. Senator Stafford, there are two things that have been addressed several times this morning, and I would like to comment very briefly. One is the concern evidenced about natural background pollutants, and I have worked with that issue in my State, in fact with the watershed that empties into Lake Superior, and I have no problems with recognizing the validity and the way that will skew the DO and temperature and so on, but not as an excuse to set standards that end up not permitting the continuation in perpetuity of the indigenous freshwater species that were in that area. As long as we maintain the integrity of that type of system, then factoring in natural background pollutants is a reasonable consideration obviously.

The second thing is the matter of the economic impacts on small communities who discharge relatively small effluent gallonage into intermittent streams, and the concerns we naturally have over the allocation of limited resources and not hampering those communities with onerous amounts of money to solve limited problems, that is a real concern. And I think the matter of our reaction to the flexibility procedure attempting to be instituted by EPA at least in part is the bearer of the message from that agency at this time as opposed to the willingness on the part of the environmental community to accept the concept of flexibility.

Senator CHAFEE. These problems have to be stated rather quickly because we are running late. Brevity is the key here.

Mr. ZENTNER. The point I want to get at is small gallonage very often contains some very toxic factors and very often small municipalities cannot deal effectively with industry from a pretreatment standpoint. As Mr. Ledbetter just indicated, there is the natural opportunity in the environment for synergistic combinations, and that is something we must not forget. And I will wrap up with that.

Senator STAFFORD. Mr. Chairman, I would suggest again that by unanimous consent you permit members to ask questions in writing for responses in writing. If that is the chairman's wish, I will yield at this point and submit some additional questions in writing to members of the panel.

Senator CHAFEE. Yes, we certainly would do that, and I hope you gentlemen would respond in a timely fashion to any questions that are submitted. I don't want to cut anybody off. We do have another panel of six members. And so, Senator Stafford, why don't we go to Senator Randolph and come back to you.

Senator RANDOLPH. I would defer to the chairman on further questioning. I have only one question.

Senator STAFFORD. I have only one additional question, but I think it can be answered in writing and I suggest we do that.

Senator RANDOLPH. Thank you, Mr. Chairman.

There has been an indication that there are some bodies of water that were mistakenly designated as high quality by the States because of, very frankly, inadequate scientific knowledge not yet available. I wonder if that is a problem of real substance and how many such bodies of water would be involved?

Mr. ZENTNER. Mr. Chairman, Senator Randolph, in Minnesota I don't believe that is a significant problem.

Mr. LEDBETTER. Senator, I will be very brief. In talking with my colleagues around the country, we see it as a problem for small streams, short segments in local communities, and we are forcing those communities to go to advanced treatment to try to meet fishing for those streams. We have many States that are encountering those problems. They are relatively short segments. In my own case I have approximately 200, and those are small towns that are on my funding list. The level of treatment necessary to have them meet the water quality standards with the very rigid criteria we had imposed on us which required advanced treatment with short segments would be five parts and four parts under the standard that EPA forces us to establish. That is the area in which we need flexibility. We would like to have seasonal classification so we could protect the stream in the high flow and during the periods of spawning, but then we still could have the fish indigenous to that stream protected in the dry weather periods and have far less requirements in the way of DO, in particular.

Mr. ZENTNER. Senator, I would like to note that has been done in Minnesota under current law, where there has been some 800 miles that have been given a degraded classification. So that has been dealt with where it has been a problem under existing regulation.

Mr. LEDBETTER. That is one of the issues we brought before this committee, the inconsistency of administration of the program in EPA. We have not been afforded that opportunity in the eight States in region 4.

Senator RANDOLPH. Any one else?

Mr. BANKS. Yes. I think in next week's testimony the Agency will throw out a number of examples where natural conditions cause water quality to be much lower than the use designations the States have selected. Those are really local problems; I don't think it is widespread. But the point is that the existing program has for many years provided that where natural conditions or irretrievable man-induced conditions prevent you from achieving the level of water quality in the standard, you have authority to downgrade it. And I am mystified if there are places where that authority is clearly provided in the regulations and has not been used by the States.

Mr. GLOVER. Senator, I think it might put the matter in perspective to note that we believe, as the National Commission did 5 years ago, that the overwhelming majority of streams should be fishable and swimmable, although as we've stated there should be some flexibility on the numerical criteria required to meet this designation. Much of the controversy that has arisen over this matter I think is confusion between toxic and conventional pollutants, and they really are two separate issues. We believe for the overwhelm-

ing majority of streams there will be few cases where there will be requests for changes in use designations, and a limited number of cases, where there will be requests for changes in numerical criteria.

Senator RANDOLPH. What you are saying is very helpful.

Let's have just a second of levity. There are those of us who are anglers of one type or another. We find, regardless of the water conditions, on one day the fish are biting, on another day they are not biting. Is there anyone that has experienced that situation?

I will not withdraw the question, but anyone can comment.

Senator CHAFEE. Thank you very much, Senator Randolph.

I would like to say in connection with the proposed EPA regulations, I want to read into the record some comments that came from the various States.

California: The regulations would make it more difficult for the States to establish protection standards.

Colorado: The regulations would bring pressure on States to weaken water quality standards. The language appears to back off from the Clean Water Act goals.

Delaware: Delaware believes the existing regulations already provide States with necessary flexibility.

Maine: The benefit-cost assessment used in this manner will not lend itself to science.

Maryland: Changes would weaken the Clean Water Act.

Minnesota: The regulations encourage industries to set State against State in water quality standards development process.

Nevada: The proposals are inconsistent with the Clean Water Act.

So, if there is any question in anybody's mind——

New Jersey: The suggested approach would make it more difficult to implement water quality management.

Ohio: The proposed regs would weaken the efforts to achieve the goals of the Clean Water Act.

These aren't verbatim excerpts. These are condensations of the statements that were submitted in response to the request by EPA for comment.

Vermont: The proposed regulations are unsupportable.

Wisconsin: The regulations are an abrogation of EPA's oversight.

So, if anybody thinks that this subcommittee is supportive of those regulations as proposed by EPA, I want to disabuse them of that. We are not. Not only have Senator Randolph, Senator Stafford, and I and others sent a letter to EPA in connection with those regs, but we feel strongly about them, and if anybody is here from EPA carrying back a message, I would tell them to report back to whoever one reports to now at EPA that there is no enthusiasm for those regulations here, and I think the best thing to do would be to withdraw them.

Now, second, what we are wrestling with here is considering this point that I made in the question I have submitted before, namely, that we reach the situation where BAT has been met, then we wrestle with what to do, what instrument to use to press forward with achieving the goals of the Clean Water Act, namely, the fishable/swimmable waters, and it is our belief that the water quality standards are the method to use to continue the thrust forward in meeting the goals of the act. When BAT has been achieved but, nonetheless, the goals have not been achieved, that is what we are seeking through these hearings and consultations that we make.

Gentlemen, thank you very much for coming. We appreciate it.

We now will do the following: I would like the next panel to come forward and also the Honorable Ron de Lugo, who I understand is here. Am I correct?

Mr. DE LUGO. Yes, sir.

Senator CHAFEE. I suspect you will be relatively brief. So why don't you come forward, and at the same time won't the panel come forward: Dr. Cassell, Mr. Eichbaum, Mr. Hytry, Mr. Hughes, Mr. Clark, and Ms. Reeves.

Senator Stafford has to leave and I know there is a distinguished resident from his State here. If you would like to make a statement, we would be delighted to receive it.

Senator STAFFORD. Thank you, Mr. Chairman.

I am happy to welcome a fellow Vermonter, Dr. Alan Cassell, director of the Water Resources Research Center, School of Natural Resources at the University of Vermont.

I would say to Dr. Cassell that his work is well-known to me, and the University of Vermont is one of our finest institutions. And that is a confession coming from a graduate of Middlebury College, which is the University's more serious rival down the road. So, on behalf of this committee, I am happy to welcome you here today. I am delighted I will have a chance to hear your testimony, and I apologize for the fact I will have to leave after you finish.

Senator CHAFEE. Because of Senator Stafford's demands on his schedule, we would ask, Mr. de Lugo, if you would withhold for 1 minute. We will take Dr. Cassell and then proceed to your testimony, if that is satisfactory with you.

Dr. Cassell, let me say your institution is certainly a fine one. I have written many a check since my son is attending there. So, I feel I have a major stake in the University of Vermont.

STATEMENT OF DR. E. ALAN CASSELL, PROFESSOR OF WATER RESOURCES, SCHOOL OF NATURAL RESOURCES, UNIVERSITY OF VERMONT

Dr. CASSELL. Keep those checks coming.

Thank you very much, Senator Stafford and Senator Chafee. I am delighted to have the opportunity to share my experiences in nonpoint source pollution. I am one of many participants in the State of Vermont's assault on one of her major water quality problems, that of nonpoint source pollution. My involvement is through my participation in the St. Albans Bay rural clean water proiect, a project designed to reduce nonpoint source pollution by controlling soil erosion and anaimal waste runoff. The reason I am here is because I believe this project offers some valuable lessons in how carefully planned and executed local-State-Federal cooperation can lead to substantial achievement in nonpoint source pollution-control.

St. Albans Bay on Lake Champlain receives both treated domestic releases and nonpoint source pollution. The Bay is a source of drinking water and is used for recreation, but its full potential is not being realized because of the eutrophic conditions in the Bay. The St. Albans Bay project is now being implemented under the auspices of the national experimental rural clean water program.

This project has as its overall objective the improvement of bay water through implementation of what we call best management practices, for BMP's for short. The project will last for 10 years.

Part one of the project of BMP implementation includes the preparation of water quality plans and the consummation of contracts with farm owners. BMP's for animal waste management and soil erosion control are designed and installed on a cost-share basis. In order to accomplish this, USDA-ASCS and USDA-SCS provide the necessary financial, administrative and technical assistance to landowners as authorized by the RCWP.

Part two of the project, the one I am involved in, is the comprehensive monitoring and evaluation activity, what we call the CM&E. The overall objective of CM&E is to document the improvement in bay water quality which results because BMP's were implemented.

How are we making this local-State-Federal program work for us in the St. Albans Bay area? And that is the thrust of my comments this morning.

Truly viable cooperative activities among local, State, and Federal agencies do not develop spontaneously and never rapidly. Typically, it takes years before the appropriate framework can be formulated. Even then it takes a lot of hard work, time, imagination, give, and take—more than most of us are willing to exert—to maintain and nuture successful continuing cooperation.

Although the bay project was started in 1981, things really started up our way about 5 to 6 years earlier. I would like to recount these.

In the midseventies, the New England River Basin Commission commenced the Lake Champlain Level B Study. As part of this study, several substudies were funded. One documented the possible impacts certain farm practices may have on surface water quality. Two others concluded that nonpoint sources of pollution, especially land runoff from agriculture, were significant sources of the pollution to Lake Champlain.

About the same time, the Vermont Agency of Environmental Conservation initiated its 208 planning process. This process culminated in a State water quality plan for controlling agricultural pollution. This plan identified areas of the State that should receive cost-sharing for conservation practices on a priority basis. The St. Albans Bay watershed was identified as the No. 1 priority.

Also about the same time, the University of Vermont carried out a problem analysis to determine which water research problems were of greatest importance to the State of Vermont. Among those identified were research that focused on protection of lakes and ponds and on the relationship between land use and surface water quality.

Also in the late seventies, a special Governor's task force was formed to study the St. Albans Bay problem. This task force resulted in a number of recommendations.

So, throughout this period the ASCS, SCS, the University of Vermont, the Vermont EPA and a number of citizens groups all actively participated in these statewide studies. While working together, we learned about each other's programs, each other's goals, aspirations and capabilities. Soon the question was formulated, how can

we help—and the key word is "we"—how can we help solve this critical local and State problem? We understood each other's strengths and constraints and began to nourish each other.

Senator CHAFEE. Dr. Cassell, we have some time problems. We have a long series of witnesses and I have to be out of here in an hour. So if you could summarize this to some degree.

Dr. CASSELL. I sure will.

What I have just described is a planning process which operated at a hiqh level. It took us 5 to 6 years. We defined our problem. When the RCWP project came down the road we had our act together and were able to work with the local and State people to create a program which very effectively implemented BMP's on the land. We also, through a management council, have a multiagency management arrangement so that the comprehensive monitoring and evaluation activity of the project also is carried out on a cooperative basis.

What we have been able to show, and this is my summary statement, sir, that active local involvement of landowners through cooperative, complementary, noncompetitive local, State, and Federal programing is a most effective manner to insure onsite BMP for nonpoint source pollution control. The stakes in this field are high. Agricultural lands must be managed and protected if future availability of food and fiber is to be assured. It is indeed fortunate whatever we do today to control agricultural nonpoint source pollution will, in addition to improving water quality, also protect our future agricultural productivity. As a nation, we need both.

I have submitted to you, sir, a more detailed statement which is a little longer to read than 6 minutes. Again, thank you for permitting me to make this testimony.

Senator CHAFEE. Thank you.

Senator Stafford?

Senator STAFFORD. Thank you, Mr. Chairman.

I have just one question and observation, Dr. Cassell, I think you can answer very briefly.

I understand the St. Albans Bay project is one of about 21 around the country that are similar to it. This is a good start, but it is only a start. So, I ask you, on the basis of your experience, is what you are learning in St. Albans transferable to other areas, and should the program be continued and expanded throughout the country?

Dr. CASSELL. Senator, briefly to answer that, I don't think there is any question that the issue of nonpoint source pollution is a national problem. The nature of the problem is different in one area from another in this country. The project in St. Albans Bay is specifically designed to assist the effect of best management practices related to the dairy industry, and in that regard it is transferable.

Senator STAFFORD. To other dairy industry areas?

Dr. CASSELL. To other dairy industry areas.

Senator STAFFORD. But it wouldn't necessarily apply to feed lot operations?

Dr. CASSELL. No, sir, we are not looking at those kinds of things. So these RWCP projects that have been funded, they have been chosen to look at a number of different agricultural type of operations.

Senator STAFFORD. Would you recommend that the program be continued?

Dr. CASSELL. Without a doubt. We know we have a problem, and as a researcher—and that is what I am here today as, a researcher—I think what we don't know is what are the best ways to manage this problem on land.

Senator STAFFORD. Thank you very much, doctor. Again, for the committee and myself personally, we appreciate your being here to help.

Thank you, Mr. Chairman.

Senator CHAFEE. Thank you, Senator Stafford. I have some questions I would like to ask Dr. Cassell, but I think we will proceed with Representative de Lugo and then return to the panel.

So, we welcome you here, Mr. de Lugo, and look forward to hearing your testimony.

STATEMENT OF HON. RON de LUGO, A REPRESENTATIVE IN CONGRESS FROM THE VIRGIN ISLANDS, ACCOMPANIED BY JAY KRAEMER

Mr. DE LUGO. Thank you, Mr. Chairman. I have a seven-page statement here and I promise you I won't read it. I have cut it more than in half, and I am going to go as quickly as possible because I know the time constraints you are faced with. But bear with me. There are some very important points I must make for the people of the U.S. Virgin Islands.

I want to point out I appear here as a friend of the environment. I have a strong environmental voting record on the House side and in the Interior Committee where I serve. I think the Government of the Virgin Island has aggressively, through its Department of Conservation and Cultural Affairs, pursued protecting the environment in the U.S. Virgin Islands, and we have done so because our economy is built on two things; tourism and rum production. Tourists come to see the beauty of the Caribbean Island community, and certainly we are not going to do anything to the waters of the Caribbean that will damage our beaches.

Rum production is an activity that is of crucial importance to the economy of the Virgin Islands. This importance lies not so much in the jobs and investment that are involved in rum production, although the 100 jobs and investment of a few million dollars associated with rum production are significant in an economy as small as ours. Rather, this subcommittee should be aware that for every proof gallon of Virgin Islands rum sold in the United States, the Government of the Virgin Island receives the $10.50 excise tax collected by the Federal Government. This excise tax rebate system provided nearly $35 million to the Virgin Islands government during fiscal 1982. That is about $300 for each Virgin Islander—man, woman, and child—and it constitutes the largest source of revenue for the territorial government apart from income taxes. Consequently, Senator Chafee, any action which eliminates or significantly harms our rum industry would be a serious blow to the people of the Virgin Islands.

Today, the Virgin Islands rum industry faces two threats to its future emanating from proposed or existing Federal legislation.

One is the proposal, contained in the bill implementing the administration's Caribbean Basin Initiative, that would grant unlimited duty-free entry into the United States to rum produced in foreign Caribbean countries. Unlike the brand-name rums produced in Puerto Rico, Virgin Islands rum is basically bulk rum and is especially sensitive to price competition. A sudden influx into the United States of inexpensive foreign Caribbean rum would, therefore, have a disproportionate impact on our industry.

The second, and more immediate, threat is the possibility that the Environmental Protection Agency will force the construction of a costly and environmentally unjustified treatment facility to treat the biodegradable effluent produced in the course of rum distillery operations. Senator Chafee, I believe there is no other regulatory decision involving the construction of a single industrial treatment facility that has as great a potential impact on a State or territorial government as this case does. Unfortunately, I must report to you today that more than 5 years of attempts to obtain administrative relief have not produced a satisfactory result.

The biodegradable effluent produced by rum distilling operations is currently discharged through an outfall into the oxygen-rich waters of the Caribbean Sea off the south shore of the Island of St. Croix. There it is rapidly assimilated without causing environmental harm. This discharge is not the source of local complaint. In all these years, Senator, I have not had one complaint from one constituent in the Virgin Islands, and this has been a public issue for many years. I would have expected I would have received one letter from somebody saying, 'What are you doing up there, de Lugo, aren't you going to protect the environment?" On the contrary, they question why a company should be forced to spend millions of dollars, at least twice the book value of its existing fixed plant, to treat a discharge which no one has shown to cause any identifiable harm to the enviornment.

Local environmental authorities are in agreement on the benign nature of this effluent. I recall the League of Women Voters supported this at the local level. They are concerned only about the temporary discoloration to the ocean water caused by the effluent prior to its dispersion. They tell me, however, that this concern could be addressed by the addition of diffusion equipment to the end of the outfall line, something the distiller is prepared to install.

Why has EPA taken the position it has? Such a facility is supposedly justified by an interpretation of the Clean Water Act in which EPA places a priority on the reduction of the effluent's oxygen absorbing capacity, to the exclusion of consideration of factors of water quality, other environmental impacts, or whether any person, fish, or plant will be better off as a result. This percentage reduction numbers game ignores an important fact. The waters of the Caribbean Sea, or ocean, into which the discharge is made are fully capable of supplying the oxygen to cause the breakdown of the effluent without harming marine life. How do I know this? Because it has been going on for more than 15 years with no fish kills, no smell, no contamination of drinking water or food supply, no endangerment of any species, and no public distress.

Jurisdictional considerations in the Senate last year prevented my amendment from being enacted that passed the House. I ask

this subcommittee now to give us favorable and expeditious consideration.

Mr. Chairman, I am sensitive to the jurisdictional concerns of this subcommittee and the Committee on Environment and Public Works. I can understand why some believe that amendments to the Clean Water Act, and not the CBI, are the proper legislative vehicle for any regulatory relief for the Virgin Islands rum industry. In fact, when the House Subcommittee on Water Resources, of which I am a member, considers amendments to the Clean Water Act, I will seek to have my amendment included in any bill the subcommittee reports.

We cannot ignore, however, Mr. Chairman, the presence of the CBI, the administration's commitment to see it enacted quickly, or the devastating effect that such enactment would have in the absence of regulatory relief for the Virgin Islands rum industry. In the event that legislative action on the CBI precedes action on Clean Water Act amendments, I ask that there be no jurisdictional objections to the inclusion of my amendment in the CBI. CBI legislation that allows increased duty free treatment for foreign Caribbean rum while failing to provide adequate regulatory relief to the Virgin Islands rum industry would be a true hardship for the Virgin Islands.

Mr. Chairman, I rest my case.

Senator CHAFEE. Mr. de Lugo, I have no questions but you have been a persistent advocate of your position. I think you have testified three times that I know of.

Mr. DE LUGO. It keeps me employed.

Senator CHAFEE. It is always eloquent, never yet prevailing.

Mr. DE LUGO. Ever hopeful.

Senator CHAFEE. That doesn't mean that we shouldn't give the most thorough consideration to the positions that you have advocated.

What is the status of your petition before EPA now? Don't you have some kind of petition before EPA?

Mr. DE LUGO. Mr. Chairman, I would like to introduce Mr. Jay Kraemer, who represents the distillers.

Mr. KRAEMER. The status of the petition before EPA, which was filed in July 1981, is that the petition is still pending. The Agency called for public comment on the petition I believe in the spring of 1982. Public comment came in. I think the public comment period ended I believe in June 1982. The matter is still pending before the Agency, with no indication, of course, from them as to what the final outcome is likely to be.

Senator CHAFEE. All right, thank you very much, both of you. Mr. de Lugo, we certainly will spend some time and see if we can't resolve this because I know it has been a great burden to you and to the people you represent. We will certainly give it every consideration. Thank you.

Mr. DE LUGO. Thank you for the courtesy, Mr. Chairman.

Senator CHAFEE. Now, gentlemen, let's proceed. We have to stay within the 5-minute time period. Everybody's statements will go into the record. We want to have some opportunity for questions. We don't want the whole time consumed by statements.

Mr. Eichbaum?

STATEMENT OF WILLIAM M. EICHBAUM, ASSISTANT SECRETARY FOR ENVIRONMENTAL PROGRAMS, MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Mr. EICHBAUM. Thank you very much, Mr. Chairman.

I am delighted to be here to discuss the problem of nonpoint source pollution and the suggested language in Senate bill 431. I am going to go to a series of charts, with the chairman's permission, that perhaps expeditious will be able to illustrate to you the several points I want to make. I am making these as an assistant secretary responsible for general environmental protection programs in the State of Maryland, specifically, the water quality programs in the State, and even more specifically the nonpoint source problems that we attempt to address. I will in a sense be building on the scientific perspective that Dr. Cassell had earlier, and I really have three points that I want to make.

The first point is that we believe we understand the impact and the sources of many of our nonpoint source problems within the State of Maryland. The second point is that there are things that we now are doing and can do in order to address those problems and improve water quality. And lastly, we welcome the interest and look forward to the assistance of the Federal Government in that effort.

First of all, figure No. 1, sets forth a pictorial representation of water quality problems in the Chesapeake Bay and its tributaries. The dark cross-hatched areas, particularly their upper reaches, are of poor water quality, when you look at living resources and look at the impact of nutrients on water quality. The lighter cross-hatched areas are only fair, and some of the lower tributaries around the Eastern Shore, Tangier Sound, are in good shape.

Figure No. 2, illustrates the sources of nutrients into that system which are causing and contributing to those water quality problems. The important thing to recognize, primarily focusing on the shaded segments of the circle, are the contributions from agricultural nonpoint sources from various basins. So if we look at the Susquehanna, which is a very large river basin, comprising about half the entire Chesapeake Bay basin and including parts of Pennsylvania and New York State, we have a major contribution of nonpoint sources from the agricultural community. Another important point to recognize is that the relative contribution of point and nonpoint sources changes from basin to basin. As you look at the West Chesapeake, for example, sewage treatment is an important contribution of nutrients.

So we can begin to use this kind of information as a management tool to decide where we have to use our nonpoint source efforts.

Figure No. 3, shows contributions from nonpoint sources on a geographic basis just in the State of Maryland where we have looked at the various watersheds and sub-basins of our tributaries and we see which of these are the most significant. The darkest shaded areas are most critical and the dotted areas, least critical in terms of pounds or tons per acre per year of nutrients which are contributed to the basin system. For example, we see in the highly agricultural areas to our North and West and on the Eastern Shore, that is where we are getting a high contribution of nutrients.

So, we think we have been able through the work of the State, and much of that has been done with the EPA and Chesapeake Bay program, to identify the problem, where it exists, and why.

Here in figure No. 4, we have done a preliminary illustration of some steps we can take to reduce phosporus and what the costs and benefits are. If we don't do anything other than what we are doing right now, by the year 2000 we will have this additional contribution of phosphorus to the Upper Bay, about a 38-percent increase. We already know that present loads are now causing problems. We have got a loss of our aquatic vegetation, a loss of aquatic species. What we have to do is not only not let that happen, we have to make progress toward improvement. On the left side of the chart we illustrate the kinds of improvement that particular strategies have, and they are not just nonpoint strategies. A phosphorus ban might give you something like a 10-percent reduction. Low tillage on the cropland in the upper basin gives us a significant reduction. When low fillage is combined with contour farming, it gives you a very significant reduction, beginning to be actually equivalent to what you would get by a phosphorus control strategy at all the major sewage treatment plants in the basin. If you cost it out, this kind of control at the treatment plants might be $2.43 a pound.

Senator CHAFEE. I am going to give you 1 extra minute.

Mr. EICHBAUM. We have a lot of programs in Maryland now to address nonpoint source problems. We have enacted legislation. We have enhanced our staff. We have a $5 million cost sharing program specifically agriculture.

I think the important thing that the subcommittee should consider is we do have an awful lot of information. We can move forward to solve this problem. I think in considering legislation, rather than another study—I have a big box of studies I pulled off my shelf—I think we ought to do a couple of things. No. 1, we ought to focus some Federal money into the kind of basic research that goes to Senator Stafford's question. Given the control techniques or nonpoint sources that we know, what mix of them do we use in a particular area where we have a water quality problem. No. 2, the Federal Government, I think through congressional action, could direct EPA and the States to identify the critical water resources of the Nation where there is a nonpoint source problem, such as Chesapeake Bay as your legislation does do, and say "States and EPA come up with an action plan." And third, I think participating in the cost sharing of actions that have to be done would also be very important.

Senator CHAFEE. Thank you. I am glad we have this panel. I look forward to hearing from the other witnesses and appreciate your testimony.

Mr. Hytry?

STATEMENT OF JEROME C. HYTRY, ASSOCIATE DEPUTY CHIEF, STATE AND LOCAL OPERATIONS, SOIL CONSERVATION SERVICE

Mr. HYTRY. Thank you very much, Mr. Chairman.

On behalf of the Department of Agriculture and Secretary Block, I would like to express our appreciation for the opportunity to appear before your subcommittee to discuss USDA's involvement

in addressing water quality problems from nonpoint agricultural sources.

Water quality problems from agriculture exist when sediment, fertilizer, pesticides, irrigation return flows, and animal wastes reach surface waters or subsurface aquifers in quantities or concentrations that preclude the maintenance of a desired water use or violate a water quality standard. The transport of these materials occur as a result of the runoff that occurs from rainfall, snowmelt or irrigation. Department of Agriculture studies have shown that excessive erosion on non-Federal lands affected one-third of the Nation's cropland as of 1977; that in excess of 15 percent of the fertilizer applied to croplands washes into surface waters; that 25 percent of the livestock operations have the potential to degrade water quality and that nearly 100 million tons of salt enter surface water each year primarily as a result of irrigation.

The Department of Agriculture has been addressing nonpoint source pollutant problems for many years through programs like the Agricultural Conservation program administered by the Agricultural Stabilization and Conservation Service and the technical assistance and incentive programs of the Soil Conservation Service. Conservation measures such as terraces, contour strip cropping, conservation tillage, waterways, and others have reduced the level of soil erosion thereby reducing the amount of sediment and other agricultural related pollutants that reach receiving waters. When Public Law 92-500 was enacted in 1972, the Department began working with EPA in the development of water quality management plans. In many cases, USDA personnel were assigned directed to EPA and State agencies having the responsibility for water nuality. These and subsequent efforts have resulted in a series of cooperative interagency projects spread across the country, all aimed at demonstrating that proper on-farm conservation and management could minimize and/or eliminate impairments to desired water uses.

In 1978, EPA and USDA initiated seven model implementation program water nuality projects funded from a variety of sources. In 1979, $20 million of ACP funds was directed primarily to projects which claimed water quality problems. In 1980 Congress funded within USDA an "experimental rural clean water program" and 13 projects were funded for a 10-year period.

Senator CHAFEE. Mr. Hytry, we are going to include this in the record. Why don't you move on to what you think we ought to be doing.

Mr. HYTRY. I think I can say certainly through the programs that we have administered thus far, those that I have mentioned, we have come to prove a number of things. No. 1 is that the farmers are willing to participate in cooperative efforts. We have had more demand for technical assistance and for cost-share assistance than money has been available. In five of the rural clean water projects we are doing intensive monitoring and trying to determine the relationship between the on-farm practices and water quality. We know we are reducing the amounts of sediment coming out. We know we are reducing the amount of insecticides and nutrients, but we don't know what specific effect these reductions are having on water quality. We hope in 1984 that the information will become

available that will answer the question how effective these programs have been.

Senator CHAFEE. Will the PIK program help by taking a lot of land out of production?

Mr. HYTRY. It certainly should. With 82 million acres taken out of production, and much of that land being subject to erosion, it certainly should help.

Senator CHAFEE. Is your budget being cut?

Mr. HYTRY. Our budget is somewhat less than it was a year ago.

Senator CHAFEE. Thank you, Mr. Hytry.

Mr. Hughes?

STATEMENT OF JEFFERSON D. HUGHES, MANAGER, ENVIRONMENTAL SERVICES, CROWN ZELLERBACH CORP., ACCOMPANIED BY GEORGE ICE, NATIONAL COUNCIL FOR AIR AND STREAM IMPROVEMENT

Mr. HUGHES. Good morning. I am Jeff Hughes, manager of environmental sciences for Crown Zellerbach in Bogalusa, La. I appreciate the invitation to testify for the American Paper Institute and the National Forest Products Association concerning the control of silviculture nonpoint source pollution.

Accompanying me is Dr. George Ice of the National Council for Air and Stream Improvement. Since 1977, Dr. Ice has conducted research on the water quality impacts of forestry activities, the effectiveness of practices to control silviculture non-point-source pollution, and the implementation of nonpoint source control programs. With the chairman's permission, we will submit our full statement, as well as Dr. Ice's findings, and summarize only in these remarks.

In November 1975, EPA first emphasized the act's section 208 water quality management process as the primary means of addressing nonpoint source pollution. EPA fostered State programs to: (1) assess the impacts of forestry activities on water quality; and (2) division best management practices and control programs, where necessary. We have been actively involved with the section 208 process nationally, regionally and on a State-by-State basis.

The results of State section 208 efforts have varied from State to State. In general, States determined that water flowing from forest lands is of high quality. Silvicultural activities have not been considered a major, overall, nationwide water quality issue. Nevertheless, localized problems are recognized.

In most cases sediment is considered the primary source of pollution from forestry activities.

Senator CHAFEE. Why don't you skip to the conclusions.

Mr. HUGHES. Our experience with the EPA program convinces us that three principles are essential to any type of program to address forestry water quality problems.

First, because of the variability of nonpoint source problems, it is imperative that efforts continue to be focused at the State level. Controls must be applied in a site specific fashion.

Also, in addition to applying site specific controls, the States must continue to have the option to utilize a wide variety of nonregulatory and regulatory programs for nonpoint source con-

trol. The nonregulatory approach is more effective in reaching large numbers of small, nonindustrial landowners.

Finally, technical and professional expertise must be applied in the development of BMP's and program implementation. The variability in silviculture activities and water quality impacts makes forestry expertise an essential part of the control process.

We are pleased to report that these principles have been embodied in almost all of the section 208 silviculture programs adopted to date. To review State efforts, I would like to ask Dr. Ice to discuss the major findings and conclusions of his most recent State program survey.

Senator CHAFEE. Thank you, Mr. Hughes.

Go ahead, Dr. Ice.

Dr. ICE. Thank you.

Currently, 40 States have developed silviculture non-point-source-control programs under section 208. To characterize these programs, seven States now have regulatory programs for silviculture activities. In addition, four States have emphasized existing regulations designed to control all sources of sediment or organic debris in streams. We consider these State programs as quasi-regulatory because they are directed at other activities, as well as forest products. They also emphasize education to foster use of BMP's.

The majority of States that addressed silviculture have adopted nonregulatory programs. These programs involve education efforts to inform operators about BMP's which have been developed. They often encourage adoption of BMP's by integrating water quality protection into normal forest extension planning. This type of program sometimes uses financial incentives to promote adoption of BMP's. Some nonregulatory programs also use a peer-pressure approach. For example, industry representatives will visit a problem site and encourage the logger to use appropriate practices.

In many Western States, public lands constitute a large percentage of the forest. Agreements between section 208 agencies and Federal land management agencies to improve water quality protection measures are the primary means of silviculture control.

In 1980, four problems most frequently identify by States as impeding progress in their programs were: (1) lack of funds; (2) limitation of agency personnel; (3) problems in implementing existing controls; and (4) the difficulties of contacting and informing small landowners. Our 1982 survey indicated that State agencies continue to show a desire and ingenuity in addressing these problems.

In 1980, some States predicted that nonpoint source control activities would cease unless Federal appropriations were provided to support implementation of State programs. Therefore, in 1982, we asked States to project the future of their programs.

Of the 40 States with a silviculture program, 30 projected that they would continue as currently operating. Some States are anticipating an adjustment period as programs are finalized and implemented. Other States will make decisions about future program direction based on the results of ongoing assessments. Finally, a few States have reported that programs will be downgraded because of lack of funds.

Generally, it appears that the programs have developed to the point that most States will be carrying out their responsibilities

using either State funding, industry-State cooperative programs, or by incorporating nonpoint controls into normal State forestry program activities.

By 1982, several State programs had been operating for a sufficient time to judge program success. Several States have conducted field assessments of their programs. Most of these States have shown effective water quality protection, and an increased awareness and implementation of BMP's associated with forestry. Most important, comments by the States indicate water quality concerns are being integrated into normal forest operations.

One difficulty States still face is the lack of data concerning the costs and benefits of State programs. Few States have information of this sort. EPA is encouraging the collection of these data during the next 2 years.

In summary, the overall status of silviculture control programs is good.

Senator CHAFEE. Is the primary source of the sediment from the lumbering operations?

Dr. ICE. We feel, based on research, most of the sediment coming from forestry is a result of road construction.

Senator CHAFEE. I will have some questions when we finish up. Mr. Clark?

STATEMENT OF EDWIN H. CLARK II, SENIOR ASSOCIATE, THE CONSERVATION FOUNDATION

Mr. CLARK. Thank you, Mr. Chairman. My name is Edwind Clark a senior associate at the Conservation Foundation, a not-for-profit environmental policy research foundation in Washington. Let me summarize my testimony, which is focused on erosion.

In 1977, the Department of Agriculture found we had 6.4 billion tons of erosion on America's lands. How much is this? This is about 220 tons of erosion every second, about 30 tons per American in the United States. In Iowa, for every ton of corn grown in that State, 5 tons of soil erode. For every pound of food we eat, 22 pounds of soil are eroded from America's agricultural lands.

Senator CHAFEE. I think the loss of the topsoil is a disaster to the country. The question we have to address here is whether that is for us to solve through the mechanism of The Clean Water Act or is it for the Department of Agriculture to solve as to what it is doing to the potential agricultural potential of our Nation?

Mr. CLARK. You cannot separate the problems, because most of the soil that is eroded eventually gets into our streams and causes problems, destroying wildlife, fisheries, filling reservoirs, creating health risks in drinking water supplies, and causing a number of other problems as it flows on downstream. So, you cannot separate the water quality impact from the on-farm impacts.

Let me really skip over the problems that are caused. Some of these have been talked about before.

Of course, agriculture is not the only source of nonpoint source pollution. Urban runoff, mines, construction sites and others are also important sources. When you take all these together, they provide a substantial proportion, about three- fourths, of the sediment in our rivers, about 90 percent of fecal and other coliform bacteria,

80 percent of the total nitrogen and 50 percent of the phosphorus that reach our waterways. They are the major source of pesticide pollution and other toxic pollutants such as lead and cadmium. Over 90 percent of the lead reaching most of the Great Lakes comes from nonpoint sources, and they are a major, and in some places dominant, source of BOD loadings.

The impact of these is more serious than their numbers would indicate because they come into the rivers in slugs and can substantially degrade what under normal cases is a clean river.

If nonpoint source pollution is the question—and I think it is—what can we do about it? Answering this question requires judgments about technology, about our knowledge, about economics and about institutions.

With respect to most sources, I think we have the technical know-how to implement solutions. For most agricultural lands, techniques for reducing soil erosion have proven their effectiveness over the past four decades.

In some areas, for example, in controlling urban runoff, the technical solutions are not so clear. But I think, in general, it is fair to conclude we do have technical solutions to solve most of the problems.

The next question is do we have sufficient knowledge? For instance, do we know which techniques should be adopted at any particular location, and where they should be applied in order to control water quality problems? Here again I conclude that in most cases we do have sufficient knowledge. We do not need to initiate a new planning program. I have personally reviewed hundreds of documents produced by the section 208 planning process in every State in the country. Many of these documents demonstrated that the relevant State or local agencies had substantial knowledge about the extent and sources of their water quality problems and what actions would have to be taken in order to correct them. We also have substantial knowledge collected by the Soil Conservation Service and by other Federal, State and local agencies. If we have the will, I think we have enough knowledge to get the job done.

But having the will means having the money and the institutions to deal with these problems, and that is where the problems lie. Although some of the techniques are inexpensive—some agricultural pollution control techniques can in fact reduce a farmer's production costs—others are too expensive for many of our farmers, with their currently depressed incomes, or cities, with depressed revenues to afford without outside help.

I do not mean to suggest, in making this observation, that the costs of controlling nonpoint sources of water pollution are too great. In many areas the costs of not controlling them are certainly greater. It is just that, at least at present, some of the responsible parties are suffering severe economic problems that financially prevent them from doing what needs to be done.

Senator CHAFEE. One more minute.

Mr. CLARK. And, therefore, I believe, they will continue to need financial assistance from the Government.

The final question is whether we have the appropriate institutions for achieving this cleanup. This is probably the most uncertain area of all. We have spent, over the past three decades, more

than $20 billion in Federal programs to reduce soil erosion, but we are still losing two billion tons of soil a year from our cropland. We have depended primarily on volunteer efforts of farmers. But those farmers suffering the most serious problems are not always the ones most anxious to volunteer. If we are to adequately address the problems of non-point source pollution, I believe we probably will have to go beyond depending only on volunteers. Action I think can be taken in the context of the Clean Water Act that can require the more reticent landowners and more reticent cities to take the actions that are needed.

Thank you, Mr. Chairman.

Senator CHAFEE. Where do you get your figure $20 billion?

Mr. CLARK. That is the sum of appropriations to the Department of Agriculture since the thirties for water and soil conservation.

Senator CHAFEE. Would you agree with that, Mr. Hytry?

Mr. HYTRY. That figure sounds right.

Senator CHAFEE. It sounds high to me.

All right, Ms. Reeves.

STATEMENT OF MERILYN B. REEVES, NATURAL RESOURCES COORDINATOR, LEAGUE OF WOMEN VOTERS OF THE UNITED STATES

Ms. REEVES. Mr. Chairman, my name is Merilyn Reeves. I am here representing the League of Women Voters of the United States. I serve as Natural Resources Coordinator for the League. Our members have participated in many of the programs that you have heard described here today—programs such as the Chesapeake Bay program and the national urban runoff programs—which were designed to identify the nonpoint source pollution across the country.

We believe that now is the time that implementation measures must be enacted by Congress. We believe these are vital, that implementation is the word that we must go to now, implementation not only for protection of water quality, but also for prevention of soil erosion and cleanup of dirty city streets. We believe at this time there should be no doubt that control of nonpoint pollution is a cost-effective investment in the future. And we believe that this should be done and, clearly, that State and local units of government are in the best position to assess their problems and to develop these best management practices for control.

But our League experience has shown over the past 10 years that State and local governments cannot do it alone, and that nonpoint pollution problems are too severe to continue uncontrolled. We believe it is time for the Federal Government to step in to insure all State and local governments address the most serious pollution problems and have access to the tools they need for success. We believe we should insure that cleanup efforts by one State or locality are not thwarted by poor conservation practices upstream. We believe we should promote better coordination among the numerous Federal, State and local agencies dealing with nonpoint pollution and related problems in order to maximize benefits. And we believe we need to build on the Federal investment made and experience gained in the 208 program.

We believe that this panel has demonstrated that we know what needs to be done, we know what programs are necessary, and now we need to have the will to do it.

My testimony documents some examples from our League members across the country as they have looked at the problems. My testimony also documents some of the pollution problems. Clearly when it comes to nonpoint sources we have to recognize the fact that there is a severe problem. I think that my testimony also indicates that in order to do something about the nonpoint problem of pollution we cannot do it by relaxing point source controls. Instead, in order to meet the goals of the Clean Water Act we must meet strict controls on all sources.

Now, since the demise of the 208 program, some States and localities have begun programs to control the most serious of the nonpoint problems, but it has been a struggle in the absence of both Federal leadership and Federal funding. We believe this committee must reestablish Federal leadership in this area, shore up the existing State and local efforts, and encourage additional States to tackle the most damaging nonpoint problems.

Much has been said about urban runoff and rural erosion. In the urban area we have a very severe problem. The runoff from our city streets contains many harmful pollutants. EPA's national urban runoff program sampled pollutants in test urban centers and found lead, zinc, copper, cadmium, asbestos, selenium, nickel, chromium, arsenic, oil and paint all running off from our streets and going into our streams. Our testimony documents some of the evidence that has piled up in this area.

Clearly, this city debris and pollutant-contaminated dirt washes into our rivers. We also have sediment from our city areas, from the construction sites, and our suburban areas.

We believe that these sources of urban pollution can be controlled. We believe street cleaning with vacuum sweepers is an effective means of controlling this nonpoint pollution, and they also make our cities so much more livable.

When it comes to agricultural runoff, clearly, the estimates that have come by EPA indicate the largest nonpoint pollution problem by volume is sediment entering streams, rivers and lakes, and one-half—one-half—of this sediment comes from cropland. We know that this sediment carries with it pesticides and herbicides bound up into the sediments.

Soil erosion and its attendant water quality problems are most acute on marginal cropland where erosion rates are high. Estimates vary, but, according to the Department of Agriculture, 54 percent of all soil erosion takes place on 10 percent of our cropland, and most of this cropland is marginal cropland.

Now, we realize farmers today face difficult economic conditions.

Senator CHAFEE. One minute.

Ms. REEVES. We are not proposing new measures that would be unduly burdensome. But we think there are steps that should be taken to insure the future productivity of the farmland. One such step is cross-compliance, or making good soil conservation practices a prerequisite for receiving Federal subsidies. This concept is winning increasing support among farmers. The Federal Government should stop giving mixed signals to farmers, encouraging conserva-

ton on the one hand and rewarding poor erosion control practices on the other through loans, price supports and disaster relief.

We believe that Congress should amend the Clean Water Act to create a program to set and implement best management practices to control nonpoint pollution. Development and implementation of best management practices should take place at the State and local levels. We should build on the experience developed at the State and local levels through previous nonpoint programs. Best management practices should be set and implemented in two phases, the first being less stringent than the second. The practices would not be rigorous controls, but they would be based on readily achievable and well-known practices. They probably would not be the best of the best management practices. In the second phase, the State, or local unit delegated responsibility by the State, would set the best management practices at a more stringent level as necessary in targeted areas to attain the desired water quality. We know there will have to be a planning process. We do not envision a large one.

Senator CHAFEE. Ms. Reeves, I will give you 20 seconds more for some pearls of wisdom.

Ms. REEVES. We believe we have a good proposal and we want you to consider this program. We believe we have outlined for you a means by which you can put provisions in the Clean Water Act to get on with the implementation that is necessary.

Thank you.

Senator CHAFEE. Thank you. Well done.

I just say you folks have all thrown out a great challenge to us here. Let me ask you this: Something has gone wrong, in that Mr. Clark said the techniques for reducing soil erosion have proven their effectiveness over the past four decades; I think Ms. Reeves said those farmers who undertake this find it satisfacotry. And Dr. Cassell has had success up in Vermont where you are primarily working with dairy farmland in that region. I think there is a horse farm too. Yet, it is not catching on. Now, my question is is there something in it for the farmer? It seems to me there would be something considerable in it for the farmer not to see the topsoil washed away. Most of these farms are family run, where the father wishes to pass it to the son, in Iowa, for example, yet we have the very discouraging testimony about the tremendous loss of topsoil.

Let me ask you, Dr. Cassell, what is in it for the farmer, particularly a dairy farmer? What incentive would make him join?

Dr. CASSELL. In the RCWP program we follow cost shares with Federal money. I think it is in the neighborhood of 70 percent Federal, 30 percent local funding. Yet, many of these programs involve the expenditure of a considerable sum of money of the farmer's money.

Senator CHAFEE. Are you talking about contour plowing?

Dr. CASSELL. I am sorry. Soil erosion is not the big problem where we are. In our area the big problem is manure. Every animal gives off enough waste for about 10 people, so it doesn't take many animals to overwhelm the human waste in a watershed. The practice is basically one where we store the manure during those periods of the year when they should not spread it on their land. The major cost is the cost of the structure to store the manure, which tends to be a very large structure if you have a

large farm, and the special equipment required to spread it rapidly at the appropriate time.

Senator CHAFEE. You would spread in the winter?

Dr. CASSELL. You typically do not spread in winter. You don't want it on top of snow or frozen ground, you want to spread it immediately before you are going to plant in the spring, and very often the animals are out on the pasture in the summer. Typically you save and do not spread during the winter. These practices, depending on the size of the farm and on the success, might cost anywhere between $15,000 and $40,000. It is hard to talk a farmer into spending that kind of money unless you can show there is some return to him other than to be a cooperator.

Senator CHAFEE. What is his return?

Dr. CASSELL. The major return that is being used to convince them to do this is, No. 1, you don't have to go out on a cold winter morning to spread the manure. Even though they live in Vermont, they don't like the cold morning. No. 2, they can substantially reduce the expenditure they make for commercial fertilizer by recovering more of the fertilizer for crop fertilization, rather than having that run off into the streams.

Senator CHAFEE. OK, Mr. Eichbaum?

Mr. EICHBAUM. I think that, first of all, the nature of farm ownership has changed and you don't have the family farmer who has a long-term investment perhaps, but you have a different economic situation, a corporate ownership, large farmers that are farming land that they don't own and a real intense need to be maximumly productive. Many of those practices are inducing a departure from some soil conservation techniques of the past. I think that incentives will help—our $5 million is up to 87.5 percent cost-sharing for the farmer for best management practices. I think, second, a real education as to the role that they are playing in the problem. We found in the Chesapeake Bay what I would view as a night and day shift in the attitude of the farm community. They now understand that they are contributing to a problem and they feel a responsibility.

Senator CHAFEE. In your situation you are working with people way up the Susquehanna River. Yesterday, we had testimony that the major contributor to the pollution in the Chesapeake Bay was New York.

Mr. EICHBAUM. New York and Pennsylvania are a major source through the Susquehanna. We have begun to meet at educational levels and informational levels with farmers in those communities, and they see the problem is real, that they are contributing to it. That gets their interest. Many of these techniques can save money, some are zero cost to the farmer. But I think we are going to have to give them incentives of one sort or another.

Senator CHAFEE. Ms. Reeves mentioned the soil conservation efforts, linking it with subsidies. We tried that in the Senate last year; Senator Armstrong's legislation passed the Senate, was killed in the House, died in conference, couldn't get through the Agriculture Committee. But he took his amendment to the floor on the appropriations bill.

I read an article about the growth of organic farming to a greater extent, and then the administration eliminated the sole resource on organic involvement in agriculture.

Ms. REEVES. Mr. Chairman, the League believes instituting practices such as cross-compliance might not be popular, but it does not necessarily mean that it is something that should not be passed. We believe it will show the determination and importance of nonpoint pollution control efforts to water quality in attaining the goals of the Clean Water Act.

I would like to answer your question about what is in it for the farmer. I think for the farmer, in the short term, there is a cost. In the long term, there is a gain, an economic benefit, for farming and for those farmers who intend to pass on and to continue to farm that land. So, there is no doubt that in the short term expenditures are there. In the long term, we will reap a great deal of benefit from instituting the program.

Senator CHAFEE. Anybody else in 2 minutes?

Mr. CLARK. Well, to answer your original question, yes, for some farms, for instance in the Midwest where there maybe up to 200 feet of topsoil, the farmer can not see any reduction in output because of erosion. The costs are being experienced instead by the farmers downstream, where the eroded soil is causing increasing problems. This is why, in Iowa for instance, they have adopted a law for controlling erosion that allows downstream farmers to sue upstream farmers producing excess erosion. Another contributing factor, in the mid seventies, was a drop in beef production. A large number of farmers out there shifted from cattle to growing soybeans on what had been pastureland, which was often hilly, sloped, very erodible land, and soybeans are one of the most erodible crops.

Mr. HYTRY. I would like to make a comment in that respect. I think there are very few farmers who are not conservationists. However, first things come first, and first is to survive. I think all of us recognize the economic disaster the farmer has been in. When it is a matter of paying the bills, buying seed and buying fertilizer and feeding the family, the problems of soil erosion, as well as water, are not high on the priority list.

Senator CHAFEE. Well, thank you. This has been a good panel and certainly brought out strongly the problem of nonpoint source pollution.

Finally, we will end with David Delcour, vice president, Amax, Inc.

STATEMENT OF DAVID DELCOUR, VICE PRESIDENT, AMAX, INC.

Mr. DELCOUR. Thank you, Mr. Chairman. My name is David Delcour. I am testifying on behalf of the Western Regional Council, a group that was organized to provide a unified voice for the business community of the Intermountain West.

The Western Regional Council has submitted to the committee staff extensive testimony, together with a rather lengthy position paper and case studies illustrating our concerns.

We support reauthorization of the Clean Water Act. In doing so, however, we urge several minor revisions to the act which, if adopted, will make the act more responsive to certain features of West-

ern water management. Our written testimony addresses five areas in which we believe amendments to the act would be appropriate. Two deal with section 404, and I understand that is outside the scope of today's hearing. Accordingly, I would only urge that the subcommittee address the need to amend section 404 at an early date and incorporate our proposals at that time.

Of our remaining three proposals, two are easily stated. The Western Regional Council believes that storm water runoff devices should be excluded from the definition of "point source" contained in section 502(14) of the act. In those cases where such runoff neither comes in contact with process water nor contains toxic pollutants or hazardous substances EPA now requires NPDES permits for such devices, and we believe that practice penalizes companies from installing devices they were not required to install, and which in and of themselves prevent or minimize pollution. Our full statement includes examples of this problem.

The next recommendation relates to the zero discharge goal. As that goal is being interpreted by one region of the EPA, region 9, some modification seems necessary. We recommend that the goal be amended to read "the discharge of pollutants in harmful quantities" be eliminated by a certain date. Arizona law, like that of many Western States, provides that waters of the State are to be put to beneficial use within the State and become return flows to the waters of the State and subsequently reused. EPA's region 9 office has cited this provision of Arizona law as a basis for refusing to delegate the NPDES program to the State. At the very least, we believe this problem should be addressed in whatever legislative history is assembled in connection with the legislation presently before you.

Our final proposed amendment deals with the effect of water quality standards on Western water. Water quality standards are generally more stringent than technology based effluent limitation guidelines. In wetter regions of the country, this disparity has little or no practical regulatory effect, since high stream flows generally dilute discharges enough to enable technology limited discharges to protect receiving water quality standards. Unfortunately, in perhaps the majority of cases in the arid West, and because of low natural flows, industrial dischargers often are asked to install treatment systems that are better than what EPA has defined as being best. When this happens, the Western Regional Council believes States, in considering NPDES permit applications, should be allowed to consider economic issues, without running the risk of EPA disapproval. While current law does allow economic factors to be considered by the State in the setting of water quality standards, adequate information invariably will be unavailable until the impact of the standard is reflected in an NPDES permit. Then it is too late to consider economic factors. The easiest way to deal with this problem is to amend section 302 of the act. That section already requires the EPA Administrator to consider economic costs and benefits in the imposition of effluent limitations more stringent than BAT. By adding a new subsection to section 302 requiring a similar review for all water quality based effluent limitations, whether imposed by EPA or a State under section 301, we believe

the catch-22 which I briefly described, and which is more fully described in our written statement, could be eliminated.

Finally, Mr. Chairman, the Western Regional Council must reluctantly oppose section 6 of S. 431. We recognize there should be a heavy burden placed on those who propose the downgrading of water quality standards. However, to freeze forever the designated use existing on January 1, 1983, without regard to the prospect of ever achieving the designated use, makes no sense. Of course, you had considerable discussion of that point earlier in your hearing.

I think that will conclude my testimony, and I appreciate your consideration of our proposed amendments.

Senator CHAFEE. What did you think of the nonpoint source testimony we just had?

Mr. DELCOUR. I am pleased to report that that is a subject I don't understand very well and I don't believe I could offer a very valuable opinion to you on it.

Senator CHAFEE. Fine. Thank you very much for coming. I appreciate your statement. We will review your full written statement.

That concludes the hearing. The next hearing will be April 14 at 10 o'clock.

[Whereupon, at 12:30 p.m., the subcommittee recessed, to reconvene at 10 a.m., April 14, 1983.]

[Statements submitted for the record follow:]

NRDC
Clean Water

Statement of

James Taylor Banks
Senior Staff Attorney

before the

Subcommittee on Environmental Pollution

of the

Senate Committee
on
Environment and Public Works

WATER QUALITY STANDARDS AND TOXICS CONTROL UNDER THE CLEAN WATER ACT

April 7, 1983

Natural Resources Defense Council • 1725 Eye Street, N.W. Suite 600 • Washington, DC 20006 • 202/223-8210

Introduction and Summary

Good morning, Mr. Chairman. It is a pleasure to appear before the Committee again as you re-convene your consideration of amendments to the Clean Water Act. In last summer's hearings, I testified regarding EPA's proposals to change several vital components of the Act -- those governing the technology based controls on toxic industrial discharges. Today, the dicussion centers on the related, and equally important question of water quality standards and, unfortunately, this issue also arises due to the Agency's actions and inaction affecting long standing policies under the Act.

Mr. Chairman, you and Senator Randolph have introduced legislation (S. 431) which in many ways reaffirms the desire of most Americans that Congress retain a strong Clean Water Act. We think your bill's provision on water quality standards is an appropriately cautious response to the dangers inherent in EPA's recent regulatory proposals -- changes which in numerous ways would facilitate the downgrading of use designations in state water quality standards and undermine other aspects of a sound, systemmatic approach to preserving water quality.

NRDC, and other environmental organizations have actively opposed the new directions outlined by the Agency for water quality standards. We regard EPA's proposal as perhaps the most important and most damaging water quality action the Agency has

undertaken in the last two years.

In our formal comments submitted to the Agency, we have explained why the proposal is an unlawful and unwise regulatory action, and we consider our legal case to be strong. The issue facing Congress is more fundamental, however, since EPA's proposal presumes to alter the national objectives established in the Act. It is your responsibility, not EPA's, to establish national policies for clean water; we are encouraged by your initiative and trust that through these hearings the Committee will build a solid foundation on which to move forward.

On a related issue, we are asking the Committee to consider a new initiative requiring EPA to begin grappling with the next round of toxic pollution controls for point sources. Once BAT is in place, EPA needs to determine where technology controls have not been sufficient to protect water quality and human health from toxics hazards, and then to develop controls "beyond BAT" on a site-specific basis. These toxic "hot spot" strategies could be built on water quality standards, or on other provisions of the Act, but the first step must be to determine where and when such controls are needed.

WATER QUALITY STANDARDS

Our position on water quality standards is straightforward, Mr. Chairman. Existing EPA regulations are a logical and legal extension of their enabling legislation, and they should remain

in effect. In order to avoid abdicating these policy decisions to EPA, we urge you to clarify the statute by incorporating the major points of those rules into the law. In the discussion below, I will first outline our principal objections to the EPA proposal, and then explain the specific amendments we think are necessary to keep this program on firm footing.

To begin with, the proposal on water quality standards cannot be viewed in isolation from EPA's overall policy agenda. In testimony before this Committee and others, EPA has asserted many times that it is committed to the system of uniform, national technology based controls without any water quality based variances. While granting that the current EPA clean water bill contains no variance proposal, we remain extremely concerned about the issue. If such a proposal were adopted, state standards would be the only suitable benchmark for variance decisions, and EPA's move to downgrade those standards would remove any hope of an environmental safety net.

Consider the following:

-- Mr. Eidsness has stated publicly that "It is no secret that this Administration supports a water quality based approach to pollution control."

-- Mrs. Burford made it clear that the Agency has not abandoned its interest in BAT waivers, only that the concept lacked legislative support and therefore was not

being proposed last year.

-- The chemical industry is promoting a BAT waiver amendment. On Monday this week, the duPont Company's Chairman of its Environmental Quality Committee wrote to the Washington Post claiming the need for such a variance.

EPA's water quality standards proposal is a serious matter by istelf. But combined with a BAT waiver, it would render meaningless the concept of uniform national guidelines premised on technology based controls. The proposal would plunge EPA into endless, pseudo-scientific debates -- not only as to the need for BAT, but also regarding the suitable floor for water quality protection.

EPA's Narrow Focus on "Priority" Water Bodies

EPA proposes to waive a statutory requirement that states must review and revise water quality standards for all state waters every three years. EPA claims that its new focus on so-called "priority" waters is a cost saving measure. The Agency's presumption appears to be that Congress made an error in requiring triennial reviews of all waters, and that the Agency should take responsibility for correcting that mistake.

In practice, there are two good reasons for the triennial review as presently required. First, it is important for states to review stream segments where designated uses may have been

exceeded by actual uses so that those segments can be upgraded accordingly. Where progress has been achieved, the regulatory process must catch up to prevent losing these improvements to future or expanded discharges that otherwise could cause water quality to deteriorate down to the level of currently designated uses. The process will not catch up without comprehensive examination of these waters every few years.

Second, it is equally important that states review their standards to ensure that all necessary criteria are included. These reviews can be (and have been) accomplished systematically and logically to minimize the burden on state resources. But without the proper criteria, state standards cannot function effectively -- either as a floor for water quality or a means of going beyond technology based controls wherever necessary.

EPA's Failure To Emphasize Toxics Control

Similarly, while EPA would require that states adopt criteria that are "compatible" with protecting a designated use, it would only "encourage" states to review discharge information and other data to identify toxics problems. This aspect of the proposal is inadequate to fulfill the requirements of the Act.

Only about half the states have any numerical standards for toxics. Those that do usually cover only a handful of heavy metals -- nowhere near the 40+ chemicals covered by BAT -- and

almost never consider chronic toxic effects or human exposures through the food chain. For example, only 26 states have quantitative standards for lead, cyanide and cadmium; fewer than 15 have a PCB standard; and only six have a standard for silver. Most of these standards are considerably less stringent than EPA's national criteria, and the range of values (for any given pollutant) across the states is considerable. In EPA's recent Regulatory Impact Analysis of the pretreatment program, this sorry state of affairs led the investigators to conclude that "state water quality standards are too limited for determining the national water quality impacts of industrial users."

Moreover, as you may recall, the Flannery Decree of 1976 requires EPA to identify toxic hotspots and appropriate mitigating strategies for these problem areas. Last year EPA promised that its proposed regulation on water quality standards would be the vehicle through which hot spots would be identified and under which toxics would become a focus for standard setting. Instead, EPA's proposal makes toxic pollutant coverage entirely a matter of state discretion, and the Agency has not even directed the states to consider any data related to expecially problemmatic areas or pollutants.

Elimination of Mandatory Upgrading Requirements

EPA's proposal also eliminates provisions from the existing regulation that require states to upgrade their water quality

standards whenever existing uses are higher than currently designated uses. This follows from the Agency's narrow view that no hierarchy of uses exists, and from its refusal to recognize upgrading and downgrading as distinct actions with very different justifications.

While the terms "upgrade" and "downgrade" do not appear explicitly in the Act, there is no reason to ignore their utility and descriptive power. Congress could not have been clearer in setting fishable-swimmable water quality above all other uses, and in devising programs to improve water quality. Part of the Act's leading objective is to "maintain" the integrity of the Nation's waters. The Act's interim national goal is to achieve high water quality -- a goal which must be achieved unless it is unattainable. This is carried forward by the Act's requirement that all state standards must "enhance the quality of water." (Sec. 303(c)(2)).

EPA has offered no justification for eliminating the upgrading requirements of the existing regulations, and obviously has failed to carry the burden of documenting any need for such a drastic departure from long-standing EPA policy.

Relaxed Restrictions On Downgrading State Standards.

EPA suggests that the introduction of new language, such as "modification" and "reclassification" of water quality standards adds clarity to the regulations. In fact, the new terminology

only clouds the issue and disguises the proposed system's bias toward changes from higher, or more beneficial uses to lower, less desirable uses. Since most water bodies currently are designated for fishable/swimmable water quality, in reality there is only one direction for most of these so-called modifications to take: in the common parlance, it is called downgrading.

The existing regulations recognize the importance of restricting downgrading to only those situations presenting extreme hardship or irretrievable pollution, and strike the proper balance between water quality goals and economic considerations. In sharp contrast, EPA's proposal undermines the Act's goals by translating these decisions into political, short-sighted, pseudo-scientific guessing games.

First, EPA's focus on physical characteristics as determinants of use attainability is unlawful and irrational. The proposal would permit changes to less desirable uses where physical conditions -- unrelated to water quality -- appear to be incompatible with higher uses.

Drawing from an example provided in EPA guidance documents, a shallow stream conceivably could be deemed unsuitable for swimming or boating classifications. How would EPA define swimming -- the back stroke? the butterfly? the Australian crawl? Should streams which are only deep enough for wading be given less protection than those suitable for swimming? Wouldn't

this include most mountain streams? Furthermore, what type and size boat should be used for a "boatable" test? At what time of year should the test be done?

Although these questions may seem far-fetched, it is by no means unrealistic to think that EPA's proposal will require reliance on depth, gradient, flow rate, or other physical factors to downgrade fishable/swimmable use designations even where existing water quality is suitable for protecting those uses.

This consideration of physical factors is grossly inconsistent with the Act. The statute's interim national goal is to achieve water quality which provides for protection and propagation of aquatic life and for water-contact recreation. EPA seeks to shift the focus completely from quality to uses. The Clean Water Act is not designed to facilitate uses such as canoeing or swimming; it relies on these uses as reference points in making progress toward cleaner water. Obviously, the danger in EPA's proposal is that it would permit declining water quality based solely on judgments about the likelihood of designated uses actually occurring.

Second, EPA's proposal for benefit-cost assessments is not authorized by the Act. In recent testimony, Mr. Eidsness said that the Agency is searching for a replacement for the current test of "widespread social and economic impacts" as applied to water qualty standards. Without giving specific examples, Mr.

Eidsness said the test has proved unreasonable, unworkable, and costly.

What the Agency now proposes to substitute for the existing economic impact test is a benefit-cost assessment. We believe EPA lacks the statutory authority to allow the revision of water quality standards on the basis of benefit-cost assessments, and that even if the Agency had such authority, it has failed to offer a methodology which could provide adequate scientific support for these policy important decisions.

We have urged EPA to retain the current regulation's provision for determining whether attaining or maintaining designated uses will result in unacceptable economic impacts. This provision is more precise and consistent with the Act's interim goal of achieving waters suitable for aquatic protection and body-contact recreation wherever they are attainable.

There is a vital distinction between these two concepts. Consideration of economic impacts connotes feasibility; i.e., can one attain the water quality use designation. Comparison of benefits and costs, on the other hand, connotes desirability; i.e., does one want to attain that designated use. This question of desirability is not a proper inquiry under the statute. Congress decided that question ten years ago.

The bottom line is that EPA's proposal eliminates the test of whether or not water quality standards can be attained, and

substitutes a test for determining whether attaining the standards is perceived to be worthwhile. This new test ignores the statutory presumption -- Congress' decision that, as an interim goal, fishable/swimmable waters shall be protected wherever that goal can be achieved.

Mr. Eidsness has indicated that his proposal for benefit-cost assessments was modeled after Section 302 of the Clean Water Act. That provision was written in 1972 for very special purposes. It requires that benefit-cost hearings be held in cases where individual dischargers seek to demonstrate an imbalance between the costs and benefits of going beyond technology based effluent guidelines (such as BAT) to achieve the most stringent level of water quality protection. In such circumstances, the Administrator is responsible for deciding what adjustments, if any, are to be made, but no changes to state use designations are authorized.

As we read the Act, Congress gave very clear directions. The classification of water bodies may depend on economic considerations, but cost-benefit comparisons are limited to decisions on whether to impose the most stringent controls beyond BAT -- where, by definition, each source already has achieved the best, affordable controls.

The reason we agree with this Congressional policy is that benefit-cost comparisons are extremely imprecise -- often

bordering on guess work, and too often underestimating the "benefits" side of the equation. EPA, for example, does not plan to define what constitutes a reasonable relationship between benefits and costs. Although EPA presents the benefit-cost assessment tool as the "scientific and technical" basis for policy decisions, there is nothing very scientific about the methodology described in EPA's guidance. And whereas non-rigorous forms of benefit-cost analysis, such as EPA's, tend to produce misleading information, more comprehensive analyses with some scientific foundation are much too expensive and time consuming to conduct routinely. As a result, under EPA's proposal water quality standards decisions would tend to be made on political rather than sound economic grounds. Obviously, that is not what Congress had in mind.

Revisions to the Antidegradation Policy

We are astonished by EPA's ill-conceived proposal to abandon protection for clean, ecologically valuable water resources. Because of EPA's unwarranted focus on water uses instead of quality, the proposal would permit deterioration of water quality to the point where it begins to affect the designated use. The existing regulatory restriction -- that the state show some "necessary and justifiable economic or social development" as a reason for degradation -- would vanish altogether. Moreover, EPA reasons that if the use remains the same, no public participation

is necessary in advance of decisions to allow additional pollution of high quality waters. We fail to see how EPA can justify calling their proposal an antidegradation policy, when in fact the reverse is true. These decisions are among the most important under the Act for which public examination is needed.

EPA's proposed elimination of absolute protection for Outstanding National Resource Waters appears to have been motivated by OMB's concerns for economic development. Surely there are better places to encourage development than in areas of pristine water quality such as national and state parks, wildlife refuges, or wild and scenic rivers. Furthermore, there is no evidence that the existing provision has created pressure on economic development, and OMB is on record as recognizing that fact.

EPA has argued that because the Act contains no explicit language pertaining to Outstanding National Resource Waters, the Agency is justified in removing the special regulatory protection. Clearly, the existing provision is consistent with the spirit of the Act. And it is ironic that EPA has no qualms about creating bad policies out of whole cloth -- variances and benefit-cost assessments, for example -- but hastens to cite the Act to expedite the elimination of a good policy, such as protection of ONRWs. If the Act is at all ambiguous in this regard, Congress certainly has an opportunity to correct that

situation.

EPA's Proposal Would Create New Variances

In the proposed regulation, EPA would create a variance from compliance with water quality standards "based on economic hardship." The purported authority for this variance appears to have been derived from a simplistic analysis of the Act's permission for states to consider economic impacts when setting state standards. As with the benefit-cost proposal, EPA has made an enormous leap from considering economics in setting ambient requirements for an entire stream segment to allowing relief from discharge limits for an individual source. This leap is not justified. Indeed, it is prohibited by the Act, and for good reason.

An economic waiver would require the permitting agency to determine whether a facility (or parent company) can "afford" to comply with the clean-up requirements. The agency would have to ascertain what amount of pollution control is within the facility's "economic capability." Above all, the agency would need to answer the difficult (and presently unanswered) question of what "capabilitiy" means. Does it mean plant closures? Does it mean loss of profits or revenues, and if so how large must such losses be before cleanup requirements can be relaxed? Does it mean a certain percentage reduction in employment? Does it mean a reduction of the company's market share -- the domestic

market, or foreign markets?

But no matter what yardstick is chosen, the agency then will have to decide whether those effects really are due to pollution control costs and not to other economic or competitive factors. There will be intense political pressures and controversial financial "factfinding" associated with each decision. The responsible agency will have to ascertain the validity of claims put forward by the variance applicant, and of course accountants for each side will debate their financial predictions throughout administrative and, if necessary, judicial proceedings.

EPA's only experience with this type of inquiry occurred several years ago under § 505(e) of the Act. That section calls for EPA to conduct an inquiry, not unlike processing an economic waiver, any time a plant threatens to close rather than comply with the Act. A pulp mill in Alaska (jointly owned by two large, international corporations) made such a threat, and EPA commenced the necessary investigation.

After two years and about a quarter of a million dollars, the Agency gave up hope of sorting out the complex financial and technical morass presented by that situation. Numerous lawyers, accountants, consultants and engineers were assigned to the effort, but no one could really say whether that mill could "afford" to comply with the law. And meanwhile, elected representatives at all levels brought great pressure on EPA to

decide for the company. Eventually EPA gave in -- delaying permit requirements for nearly 4 years.

No one has yet suggested a way to simplify such a complex undertaking. But we do know one thing for sure: the agency that receives the burden of a waiver responsiblity will have to carry it, not once or twice, but for every industrial source that chooses to make an application. There will be hundreds, if not thousands.

* * *

In summary, EPA's proposed regulatory revisions reveal major damaging changes to longstanding Agency policy. As I emphasized at the outset, policy changes as sweeping as this are the province of Congress, not the EPA bureaucracy. And while we are aware that Senate and House leaders have called on EPA to withdraw this proposal, such requests usually are rather poor substitutes for Congressional action that precludes the Agency's proposed course and substitutes responsibile national policies.

Mr. Chairman, your proposed amendment to maintain, at a minimum, those designated uses in place as of January 1, 1983, is a welcome prelude to Congressional action on water quality standards. We support this beginning and recommend the following additions to supplement what already is contained in your bill:

Recommendations

First, Congress should supplement the Act with an explicit,

mandatory antidegradation policy. The policy should require: (1) maintenance of instream water uses; (2) maintenance of water quality that exceeds current state standards unless, after full public participation, the state demonstrates (a) that lower water quality is justified as a result of adverse impacts from development that is essential to the economic or social wellbeing of the area, (b) that there are no feasible alternatives to such impacts, and (c) that all practicable measures will be taken to minimize those impacts; and (3) absolute protection of water quality in waters designated as Outstanding National Resources. In addition, the states should be required to develop methods for implementing this policy, and the Administrator should be directed to establish a registry of ONRWs, as well as a process for considering nominations for the registry.

Second, Congress should make it clear in the Act that states must upgrade their use designations whenever existing water quality standards are less protective than would be required to preserve the uses presently being attained.

Third, Congress should direct the states to systemmatically consider the need to add numerical criteria for toxic pollutants in their current review and revision of standards, and to add such criteria wherever necessary to protect designated uses.

Fourth, we urge Congress to consider the adequacy of the so-called fishable/swimmable goal insofar as it relates to public

health. As presently formulated, the goal is directed toward protecting: (1) aquatic life and their ability to propagate; and (2) human health, to the extent it is endangered by body contact recreation. The goal should be supplemented by adding health considerations related to consumption of water, fish or shellfish. These are major concerns when it comes to toxic pollutants, and are being considered when EPA derives nationl water quality criteria. The national goal should reflect EPA's current program by emphasizing these common pathways for toxic hazards.

The water quality standards provision of S. 431 effectively precludes the downgrading of use designations in state standards. If the Committee departs from this provision by providing some flexibility to adjust state standards, we recommend two additional measures that would place proper bounds on such decisions and establish full disclosure as a consequence of designating water bodies for less than fishable-swimmable water quality.

First, Congress should enact specific restrictions on downgrading. Downgrading should be permitted only where achievement of the existing standards: (1) is precluded by natural background levels of pollutants or irretrievable man-induced conditions; or (2) would require controls more stringent than BAT, that would result in substantial and widespread social

and economic impact. These essentially are the conditions contained in EPA's existing regulations.

Second, Congress should direct EPA to establish and publish an inventory of all waters designated for less than fishable-swimmable water quality. These would include current designations and any future downgradings. The inventory would inform the public of all state decisions not to protect their water resources for the most beneficial uses -- facts they are entitled to know without having to search endlessly through obscure state regulations.

In addition, for each water body on the inventory list, the states should be required to develop and carry out procedures to warn the public against health hazards that might be present due to the state's downgrading decisions. These could be in the form of advisories against consuming fish, posting streams to advise against swimming, or other measures appropriate to each situation.

SECOND-GENERATION TOXICS CONTROLS

We also urge the Committee to consider new measures that would provide additional, site-specific toxics controls wherever BAT proves inadequate to protect water quality. What is required is merely an EPA study to determine where such controls are needed, followed by a mandate to utilize existing statutory mechanisms in devising the appropriate standards.

As you know, in developing BAT regulations EPA does not concern itself with the effects of toxic pollutants in the aquatic environment. Because scientists are unable to make accurate judgments about such effects, Congress required EPA to move ahead with a pure, technology based control strategy. This is a sound, prudent policy, and we obviously support it completely.

The next question, however, is whether EPA eventually will address toxic effects and water quality after BAT has been determined. In the years ahead, EPA should be able to predict, if not accurately determine, where BAT will not be sufficient. These predictions should then furnish a means of focusing on the most likely toxic problems and directing what scientific capability exists toward deciding how much more protection is required.

We sometimes call this strategy the toxics "hot spots" program for developing controls "beyond BAT." It should be narrowly focussed so that more stringent controls are required only where fishable-swimmable quality is not being attained due to toxic point-source discharges. And it should be timed to produce the necessary clean-up requirements in advance of the subsequent round of permit revisions for industrial sources.

The genesis of this strategy was the 1976 Flannery Decree. As you know, NRDC relinquished its right to enforce EPA's duty to

develop stringent, health-based controls under Section 307(a)(2) in return for more comprehensive coverage of pollutants and sources using BAT. But the Decree also required a back-up program, the so-called Paragraph 12 program, under which EPA would carry out the hot spots strategy. EPA was required to identity the hot spots and then publish specific control strategies using its existing statutory authority.

Because the former Administrator, Mrs. Burford, was extremely resistent to the program, it has failed almost entirely. Rather than chronicle those failures here, I have attached (and respectfully submit for the record) NRDC's letter of March 15, 1982 to EPA, which outlines the situation and all of the Agency's problems.

The bottom line seems to be this: Yes, it is very likely that serious toxics problems will remain after BAT. No, EPA has not accurately determined where those areas are located. And unless Congress insists on it, EPA will not even move toward identifying hot spots, let alone developing the needed controls.

Our conern now is whether Congrses will require EPA to move ahead. From our perspective, the question is: why wouldn't Congress want EPA to locate the remaining toxics problems and do something about them? As long as the program is appropriately targeted and built on currently available data, it can produce extremely important results without undue technical and

administrative burdens. And so long as it is built on existing statutory control mechanisms, Congress need only direct EPA to use them.

Recommendations

We urge the Committee to require EPA to carry out the following measures.

First, EPA should publish (after notice and comment) a list of all waters designated for fishable-swimmable water quality, but which will not attain the designation due to point-source discharges of toxic pollutants after BAT and Pretreatment Standards are achieved. The data on which to make these predictions are available from the national criteria, Section 305(b) reports, and effluent guidelines. And if EPA's BAT regulations are as effective as the Agency and industry assert, the list should be short and manageable.

Second, EPA should then determine which point sources are causing the toxics problems as well as the amounts of pollutants being discharged by each source. Routine permit applications, which should have been submitted by now, will furnish the data for these determinations.

Third, by a date certain, the Administrator, in cooperation with the states, should propose and promulgate control strategies for each water body designed to achieve the water quality standard through point-source controls developed under Section

302 or 303. The strategy should be achievable within three years, and should include a schedule for estabishing limitations, modifying permits to incorporate those limitations, and requiring compliance by the affected sources.

We believe these are badly needed measures to lay the foundation for future toxics controls. They are carefully targeted to address only the worst toxics problems, and yet flexible in allowing EPA and the states to choose the appropriate regulatory tools. The strength of such a strategy lies in Congress' insistence that it be carried out expeditiously and agressively by the Administrator of EPA. We urge you to consider this approach thoroughly as the Committee begins to mark up amendments to the Act this year.

ATTACHMENT

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March 15, 1982

Ms. Anne Gorsuch, Administrator
U.S. Environmental Protection Agency
Room 1200 West Tower
401 M Street, S.W.
Washington, D.C. 20460

Dear Ms. Gorsuch:

We are writing to advise you that EPA stands in direct violation of the Consent Decree and the U.S. District Court's order in NRDC v. Gorsuch.*/ Paragraph 12 of the Decree requires that you identify contaminated water bodies and toxic pollutants of broad geographical concern, and publish strategies that address those problems. These obligations have not been met, and recent statements by you and your staff indicate that they will not be met in the near future.

As you know, for nearly a decade NRDC has been deeply concerned about EPA's efforts to curtail toxic discharges. We commenced this litigation in 1973 in part because the Agency had failed to regulate specific toxic pollutants, as required by the 1972 Clean Water Act. The 1976 settlement agreement substituted EPA's preferred, categorical approach for the Act's mandate to target individual chemicals. But Paragraphs 11 and 12 were inserted in the Decree to provide a "specific and substantial" back-up program for identifying and addressing problems left unsolved by the categorical approach.

Over the past six years, NRDC has shown patience and a willingness to accomodate any of EPA's legitimate problems with data and analytical methods. We have acquiesced in extensive delays under Paragraphs 4, 7, 11 and 12 despite our

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*/ 8 ERC 2120 (D.D.C. 1976), as modified, 12 ERC 1833 (D.D. C. 1979).

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concern that this program be carried out as expeditiously as possible. And we have agreed to provide EPA considerable additional flexibility under Paragraph 8. In short, we have been able to work out our differences in this litigation because EPA has demonstrated its willingness to use best efforts in meeting the Decree's requirements.

But EPA's Paragraph 12 "identifications" and its so-called strategy of February 3, 1982 constitute serious departures from the Agency's previous efforts to resolve this important, national problem. Indeed, they indicate an intent to abandon the program established by Paragraph 12 of the Decree. NRDC will not allow this program to go down the drain.

We sincerely hope it will be possible to agree on remedial measures that will cure the problems outlined below. Accordingly, we request that you meet with us immediately to discuss this matter. If we cannot reach an understanding on EPA's future conduct, NRDC will have no choice but to commence a contempt action against you in the U.S. District Court for the District of Columbia.

* * *

Paragraph 12 was included in the Decree so that EPA would target, and then systemmatically address, toxic pollution hot spots and chemicals. Subparagraph (a) requires that you forthwith establish controls to deal with specific pollution sources whenever it is determined that the standards and limitations otherwise required by the Decree are inadequate. The remainder of Paragraph 12 establishes the program requirements and deadlines for making those determinations, and for developing the strategies to implement such controls.

In short, the specific program requirements of Paragraph 12 are designed to accomplish two things: (1) they will enable you to make these important determinations about hot spots and pollutants; and (2) they will inform the public what your resulting actions will be, and when you intend to carry them out. As discussed below, the Agency has accomplished neither of these objectives, and consequently is not in a position to establish the more-stringent controls contemplated by Subparagraph 12(a).

1. Toxic Hot Spot Identifications

By July 1, 1981, you were to have identified "those portions [of the navigable waters] that are seriously contaminated by discharges of toxic pollutants ... as well as the presence and amounts of specific pollutants and their sources that are causing such contamination ...." (Pars. 12(b)(1) and 12(c)) (emphasis added). This language contains three specific requirements: that you identify (1) polluted water bodies, (2) the pollutants in them, and (3) the sources of those pollutants. The Agency's own admissions and disavowals demonstrate that none of these has been accomplished.

On July 27, 1981, EPA released to NRDC a document titled "Lists of Areas and Pollutants for Which Toxic Water Pollution Controls May be Necessary to Protect Aquatic Life and Human Health in Compliance with ¶ 12 of the Consent Decree ...." The document purported to be issued "in accordance with the July 1 deadline in the Decree," and among other things listed streams in 34 metropolitan areas "where additional controls may be necessary." According to EPA's document, the selection of these areas was based on "dilution studies" as well as "a thorough review" of water quality data and other available information. Moreover, the document promised that "additional water quality monitoring study programs" would be undertaken for each of these areas.

Nevertheless, you and your staff repeatedly and emphatically have denied that the July 27, 1981 list and supporting documents meet any of the Paragraph 12 requirements. Indeed, EPA's work under Paragraph 12 has been thoroughly repudiated.

For example, in letters to the mayors of each metropolitan area you stressed the many caveats and qualifications EPA placed on these studies, and characterized those studies as "a very rough analysis ... based on theoretical calculations." Among other things, you flatly denied the accuracy of the July 27 document's characterization of these waters as "most polluted." And in reference to NRDC's description (in a press release) of these waters as "seriously contaminated," you stated that "these press accounts do not accurately reflect EPA's position with respect to those cities."

Then in a September 28, 1981 letter to me, Mr. Bruce Barrett, Acting EPA Assistant Administrator for Water, emphasized that the identifications and EPA's technical support documents fall far short of your Paragraph 12

obligations. Mr. Barrett stated:

> They [EPA's "Action Recommendations" for each hot spot] include a brief description of ambient stream data, a cursory discussion of a dilution study, and a very preliminary 'pencil and paper' analysis of possible toxic pollutant levels at drinking water plant intakes.
>
> These Action Recommendations have not been publicized by EPA since they are based upon many assumptions, including several critical assumptions now known to be incorrect.
>
> . . .
>
> As is apparent, these EPA documents are very preliminary analyses designed for use in future field studies to see if toxic problems exist in the areas identified.

(emphasis added). In short, Mr. Barrett denied that EPA has identified any seriously contaminated water bodies, and indicated that only through future studies could such identifications be made. The five-page summary attached to Mr. Barrett's letter confirms repeatedly that EPA has not completed this work.

Moreover, in numerous statements to the press, Agency officials have stressed that EPA's identifications are faulty -- perhaps meaningless. In a statement to the Washington Post, for example, Mr. Byron Nelson said "the numbers were just calculations and didn't involve any monitoring. We really don't know what's in there." Mr. Steven Schatzow, EPA's Director of the Office of Water Regulations and Standards, said the "list was caveated to death. It was a table-top analysis, highly preliminary, based on very little actual data collection." And Dr. Tim Stuart, Chief of the Monitoring Branch, was reported in The Oregonian to have stated that the list was based on reports that were the result of "guesswork." "We're not saying ... that anything is polluted," he said. "We suspect it might be, but we just don't know."

It is patently obvious from these statements that EPA has not met its three obligations under Paragraph 12. It has not identified "those portions [of the navigable waters] that are seriously contaminated by discharges of toxic pollutants."

As Mr. Nelson admitted, it has no knowledge of the presence or amounts of pollutants in those waters. And EPA hasn't a clue which sources are causing toxic contamination -- or, in numerous instances, even which sources are still discharging. These violations of the Decree must be remedied first, since EPA cannot meet its other obligations until the necessary identifications have been made.

Finally, it is equally obvious that on-going and planned monitoring studies have not, and will not, remedy these violations within (or even close to) the Decree's timetable. At a briefing (required by Paragraph 9 of the Decree) on March 8, 1982, I asked your staff for further information about these studies. Mr. Stuart said he thought that only 16 such studies were planned or perhaps underway by the states, but could not provide any details. He suggested that I contact state officials, but neither he nor Messrs. Leutner or McBride could even name which states to contact. Vague promises of future studies by the states will not meet EPA's obligations.

2. Publication of Strategies

Paragraph 12(c) requires that "the Administrator shall publish the Agency's strategies for reducing or eliminating discharges of toxic pollutants" in each identified water body, and for each pollutant of broad geographical concern. The February 3, 1982 document furnished by Mr. Barrett, titled "Paragraph 12 strategy," is a sham. The document fails to satisfy your obligations in the following respects.

First, the so-called strategy does not specifically address any pollutants or water bodies; it merely calls on the states to make the identifications EPA was supposed to have made. Paragraph 12(c) calls for multiple strategies designed to address the specific problem areas and pollutants identified by EPA. Obviously, EPA cannot meet this obligation until the required identifications have been made. But Paragraph 12 requires EPA, not the States, to make these decisions and to devise appropriate, detailed strategies.

While this violation is clear enough from the face of the February 3 document, I nevertheless questioned your staff about the matter at the March 8, 1982 briefing. Mr. Alec McBride told me that the strategy does not address the 34 areas previously "identified" or any particular area, and was not intended to do so. Furthermore, Mr. McBride

said that neither the strategy nor any other EPA policy requires any action (even monitoring) regarding the 12 pollutants "identified" last July.

Second, the so-called strategy is not designed to reduce or eliminate pollution, as required by Paragraph 12. It merely describes an on-going process to review existing state standards, and to adjust those standards wherever possible. Those adjustments might lead to more stringent state controls, or they might result in standards less stringent than those now in effect. EPA characterizes its role as merely providing information and guidance to assist with such reviews in whatever water bodies the states select. The document's mention of EPA's authority to review state standards and perhaps set federal standards does not furnish a strategy for reducing or eliminating specific pollution problems.

Third, the so-called strategy fails to set forth any EPA actions. Paragraph 12 calls for the Administrator to take remedial actions for specific problems. Paragraph 12(a) states that "the Administrator" shall forthwith establish more stringent controls "pursuant to his authority" under Sections 302, 301/303, 307(a) or other authorities. The footnote to this provision explains that "the Administrator" is expected to "act" under [the various authorities] "in establishing" more stringent limitations, but that the parties do not agree on "whether the Administrator must act under more than one of the authorities." Furthermore, Paragraph 12(c) states that each EPA strategy shall "identify the statutory and regulatory authorities or mechanisms that shall be utilized by the Agency" for reducing or eliminating discharges of toxic pollutants. (emphasis added).

EPA's so-called strategy does not meet these requirements. It merely indicates that the states may use § 303 water quality standards (as, of course, they may) to deal with any problems they identify. If EPA's strategy is to rest exclusively on water quality standards, EPA must act under § 303(c)(4) in order to comply with the Decree. And as we emphasized at the outset, those actions must address specific toxic pollutant problems, not merely call for indefinite studies to see if there are such problems.

Fourth, EPA's so-called strategy contains no schedule. Paragraph 12 states that each strategy must include an estimated schedule for implementation. EPA's document makes

no mention of any specific schedule, other than a date for amending generic regulations, and the observation that state standards routinely are revised every three years.

Finally, the strategy has not been published by the Administrator. EPA's February 3, 1982 document was signed by an Acting Assistant Administrator and, to our knowledge, never published. The Decree requires that the Administrator shall publish EPA's Paragraph 12 strategies.

* * * * *

In sum, EPA has failed in every material respect to comply with Paragraph 12. We request a meeting with you to discuss these violations and to consider any solutions you might care to offer. If we do not hear from you within two weeks, we will seek a contempt citation against you.

Sincerely,

J. Taylor Banks

cc: Robert Perry, General Counsel
Susan G. Lepow, Assistant General Counsel
Bruce R. Barrett, Acting Assistant Administrator, Office of Water
Barry Neuman, Department of Justice

Testimony of

Rodney C. Glover

Manager, Environmental Technology & Regulatory Affairs

Procter & Gamble Corporation

On Behalf of the

American Paper Institute

and the

National Forest Products Association

1619 Massachusetts Avenue, N.W. Washington, D.C.

Before the

Subcommittee on Environmental Pollution

Committee on Environment and Public Works

of the

United States Senate

April 7, 1983

I. INTRODUCTION

Good morning. I would like to thank Chairman Chafee and the members of this Subcommittee for allowing me to testify this morning on behalf of the American Paper Institute and the National Forest Products Association (API/NFPA) with respect to Amendments to the Clean Water Act (CWA).

My name is Rod Glover. I am manager of Environmental Technology and Regulatory Affairs for the Procter & Gamble Corporation in Cincinnati, Ohio. I also serve as Chairman of the API/NFPA Clean Water Act Task Group. API/NFPA are national trade associations representing over 2,000 member companies who own and manage forest lands and manufacture pulp, paper, and solid wood products. API/NFPA members have a direct interest in the effective implementation of the Clean Water Act.

Since 1972, I have been personally involved in the implementation of the Clean Water Act through my employer's support for its objectives. As part of that effort, I have also been an active member of several API/NFPA water committees and task forces.

II. FOREST INDUSTRY SUPPORT FOR THE CLEAN WATER ACT

API/NFPA's concern with the country's water resources predates the 1972 Federal Water Pollution Control Act. API/NFPA support the Act, as modified by the 1977 amendments. The 1977 record demonstrates that we were

one of the industry leaders in proposing reasonable and constructive changes to the Act. The implementation of the Act today reflects the mid-course corrections we recommended, and this Subcommittee adopted, in 1977. These corrections did not modify or delay any of the basic objectives of the Act, but made it more effective.

Clearly, the most far-reaching and important 1977 amendments to the Act were those which distinguish between the treatment requirements for toxic and conventional pollutants. In 1977, Congress recognized the need to address the problem of toxic pollutants while, at the same time, selectively reducing excessive regulation of conventional pollutants. Congress determined that the costs of additional treatment should not be excessive in light of the effluent reduction benefits to be achieved. Thus, Congress created the concept of BCT -- best conventional technology.

At the same time, Congress decided to retain technology-based limitations as the basic foundation of the Act. This is a decision that we supported in 1977. I want to make it very clear at the outset of my statement that this is a decision which API/NPPA continue to support today. More importantly, we see no reason to move away from the technology-based approach of the 1972 Act as Congress commences the current review of the statute.

Well over two years ago, API/NPPA began an intensive review of the Clean Water Act in order to determine what changes, if any, are necessary to improve its effectiveness. We looked, in particular, for additional opportunities to apply the guiding 1977 philosophy of "avoiding treatment for treatment's sake."

After concluding our review, we believe that the Act can be more effectively focused in two ways: (1) eliminating costly and unnecessary requirements which do nothing to improve water quality; and (2) concentrating the decision-making process at the most efficient level of government to deal with a particular program -- often the state or local agency.

The Amendments recommended by API/NFPA are few in number and modest in their impact. They constitute a further refinement of the Act. Similarly, in S. 431, you have suggested that only a limited number of changes are warranted. We concur with this assessment. API/NFPA support the basic intent of a number of provisions included in S. 431.

Keeping in mind our goals of reducing costs and delegating responsibility to the most effective level of government, I will address the issues surrounding the implementation of state water quality standards. This subject is an issue of some concern to API/NFPA. We have reservations with the way in which S. 431 addresses this matter.

However, there are a number of other Clean Water Act programs which affect our members, including some to be discussed on succeeding panels. I request permission to submit materials on these subjects for the record.

III. BACKGROUND ON THE DEVELOPMENT OF WATER QUALITY STANDARDS

Section 6 of S. 431 would amend Section 303(c)(4) of the existing Act to require that state water quality standards "maintain as a minimum use the

designated use existing on January 1, 1983." This amendment follows closely on the heels of four months of public comment and controversy over the Environmental Protection Agency's October 29, 1982 proposal to revise the current regulations governing the way in which states set water quality standards (47 Fed. Reg. 49234). Before discussing the merits of either Section 6 of S. 431 or EPA's October 29 proposal, we believe a brief review of the recent history of the water quality standards program would be useful to set the basis for our current deliberations.

At the outset of this review, we wish to point out that API/NPPA and EPA share a similar interest — as expressed by the thrust of the proposed rule, and in our comments filed with the Agency. This common goal is to provide the states with the proper flexibility to evaluate the feasibility and desirability of attempting to attain designated uses which, in certain cases, may : (1) have been inappropriately derived; (2) not reflect local water quality conditions; and (3) be very costly to attain.

As you know, water quality standards consist of designated uses and numerical criteria to reflect those uses. Designated uses should be defined in a fashion consistent with naturally occurring local conditions. There are, for example, segments of streams flowing from swamps that have never had a high dissolved oxygen level. States must have the latitude to reflect such conditions — as well as others, such as seasonal variations.

Similarly, numerical criteria must be derived to reflect the needs of the aquatic community that could normally be expected to exist in a specific

stream in the absence of pollution. For instance, numerical criteria must be calculated in a manner that accounts for the differing needs of a trout in Michigan and a smallmouth bass in Georgia.

Because of the natural differences in local requirements, EPA's emphasis on "uses" is the appropriate approach to measuring of water quality. For example, dissolved oxygen levels above those which meet all needs of the local aquatic population serve no environmental benefit.

Neither we nor EPA support the alteration of existing stream uses, or the downgrading of designated uses that are technically and economically feasible to attain. Specifically, designated uses should not be removed to facilitate industrial expansion. Nor should be cease our efforts, where feasible, to achieve higher uses.

We understand the controversy caused by some of the language in EPA's proposal. Valid concerns were raised during the comment period. We expect that these problems will be resolved by the Agency.

As you know, when Congress passed the Federal Water Pollution Control Act in 1972, the statute placed primary reliance for the clean-up of the nation's waters on nationally-developed, technology-based, effluent standards. At that time, the state-of-the-art for site-specific regulation through water quality standards was such that the then-existing 1965 Clean Water Act was not achieving results as quickly as desired by Congress, EPA, or the general public. In fact, by 1972, a number of states had not yet commenced the development of standards for intrastate waters.

Thus, the 1972 Act required the development of technology-based guidelines for industrial dischargers to be implemented through the National Pollutant Discharge Elimination System (NPDES) permit program. The Act continued the water quality standards program because Congress recognized that, in some instances, technology-based guidelines alone would not be sufficient to clean up a stream segment entirely. States, after determining the location of these badly polluted stream segments would (under the framework of the 1972 Act) impose additional requirements in order to assure that these streams would move toward the 1983 goal of fishable and swimmable waters where attainable.

The legislative history of the 1972 Act contains many statements that water quality standards would remain an integral part of the clean-up program -- not to be used across the board instead, or after the application, of technology-based requirements -- but in conjunction with them as needed on a case-by-case basis. For example, the House floor manager for the Conference Report accompanying PL 92-500 indicated that, "it [Section 303] is intended to be a supplement to the 1977 and 1983 requirements."

Similarly, the Senate floor manager's statement accompanying the Conference Report noted that:

> "the Administrator should assign secondary priority to this [Section 303] provision to the extent that limited manpower and funding may require a choice between a water quality standards process and early and effective implementation of the effluent limitation permit program."

In implementing the 1972 Act, EPA followed this directive, placing the lion's share of Agency resources against the formidable problems of: (1) implementing the NPDES permit program; (2) developing technology-based BPT and BAT effluent guidelines; and (3) administering the municipal construction grants program. Coupled with the limited stream data available in 1972, and the states' lack of expertise in standards setting; EPA's preoccupation with more pressing concerns resulted in the water quality standards program taking an understandable second priority to the other programs mentioned above.

This problem was compounded by the limited guidance that EPA did provide the states regarding the derivation of water quality criteria and the designation of stream uses to develop water quality standards. Often, this guidance was inflexible with respect to considering site-specific water quality conditions.

For example, in July 1978, EPA announced that the Agency would follow a policy of "presumptive applicability" for its laboratory-derived, Red Book water quality criteria. Presumptive applicability meant that a state had to adopt a criterion for a particular water quality parameter at least as stringent as the recommendation in the Red Book unless the state was able to justify a less stringent criterion based on natural background conditions, more recent scientific evidence, or local site-specific information. The Red Book criteria were imposed upon the states even though they were never subjected to public or scientific peer review.

As a consequence of presumptive applicability of the Red Book Criteria, some states were forced into designation uses that do not reflect

the capabilities of local waterbodies. In many cases, states were compelled to develop standards for stream segments before an adequate data base was developed to justify the action. While EPA officially withdrew the policy of presumptive applicability in November 1980, a number of EPA regions still seem to apply the policy during the review of state water quality standards.

Thus, API/NFPA believe that the lack of water quality data and state expertise, combined with inflexible EPA guidance, resulted in the development of standards -- during the early and mid 1970's — which often do not reflect site-specific stream conditions. To save time and avoid conflicts with EPA, states often extracted water quality criteria directly from EPA's Red Book criteria.

For example, at a December 14, 1982 EPA hearing on water quality standards, Harold Sawyer, the Administrator of the Water Quality Division of the Oregon Department of Environmental Quality stated that:

> "I reject outright the assumption that standards that are adopted today were in all areas, every stream, every reach, adequate, based on sound data, because they were not. And if we then assume that because they were adopted you are somehow prohibited from factoring in the more specific data and adjusting those standards up or down to reflect the better data, because it is a downgrading or because it is something else, then we really have a problem with the program and the credibility of it."
>
> We find ourselves frequently trying to set priorities on that basis where there are procedural requirements in current regulation that tend to force you into some kind of a process now that doesn't gain anything but burns up resource. A review of standards on a statewide basis every three years is certainly not a very productive use of a very limited resource."

Thus, where it has occurred, this type of standards development has resulted in standards that exist on paper but are difficult to implement on individual stream segments. In some cases, these standards have been used as ambitious but ambiguous goals, rather than enforceable requirements. Some of these standards have been improperly derived. In a few cases, they were derived properly, but will be extremely difficult and far too costly to implement.

As we move beyond the broad-scale application of technology-based standards, to superimpose water quality-based permit requirements on individual stream segments, attaining these standards will be very questionable. EPA has made the same point at recent House Water Resources Subcommittee hearings on water quality standards. EPA Assistant Administrator, Frederick A. Eidsness, Jr., stated that:

> "Immediately after the passage of the 1972 Clean Water Act amendments, most States adopted fishable and swimmable use classifications for their rivers, lakes and streams. This was sometimes done without adequate analysis concerning what constituted a fishable use given the chemical, physical and biological characteristics of a particular water body. Experience has shown that, in some cases, a particular use, such as a trout fishery, cannot be attained because of hydrologic conditions or physical modifications of the stream. In some instances, the occurence of pollution prevents the use from being attained."

Attached to API/NFPA's testimony are case studies where improperly derived standards that are not reflective of local stream conditions were imposed through EPA's inflexible policies on water quality criteria. They

also represent cases where increased technology, forced by incorrect standards, at increased cost, does nothing to protect the environment. The attached case studies represent examples where our industry has been directly affected by the problems EPA describes above.

Notwithstanding these start-up problems, the water quality standards program has and continues to evolve as EPA and the states gain more data and expertise. All 57 states and jurisdictions have approved water quality standards for commonly regulated pollutants such as biochemical oxygen demand (BOD), ammonia, and phosphorus. Substantial additional data have been collected, providing the states with a longer and more detailed baseline for the development of site-specific criteria where needed.

For example, through the Section 208 planning process, the states have compiled considerable information on water quality conditions and problems on specific stream segments. The states' Section 305(b) reports have likewise resulted in the development of a substantial information base for identifying priority stream segments and developing site-specific criteria and standards. Finally, the states have collected a great deal of water quality data from: (1) industrial discharge monitoring reports (DMRs); and (2) federal, state, and industrial water quality studies for NPDES permit renewals, and for locating new sources. In short, a number of data collection programs which did not exist in 1972 now provide a part of the basis for the development of more precisely derived, site-specific criteria, to form the basis for credible water quality standards.

Thus, API/NPPA believe that the program has matured to the point that

states are now in a much better position to review and revise their standards in a technically sound fashion. The water quality data base that will drive the state review has had the benefit of 10 years of further development. In the context of what the Act originally envisioned — site-specific standards on priority segments to direct regulatory decisions in conjunction with technology-based controls as contemplated by Congress in 1972 — the state agencies now, by and large, have the necessary experience and expertise.

We concur with the Association of State and Interstate Water Pollution Control Administrators' (ASIWPCA) testimony at a January 20, 1983 EPA hearing on water quality standards. ASIWPCA stated that:

> "The states have now had more than 10 years experience in water quality management using technology-based effluent requirements and water quality standards. During this time, the states accumulated substantial experience and data with which to develop defensible, credible water quality standards."

In summary, the water quality standards program must be addressed today in the context of a program that: (1) has not been subject to legislative oversight or scrutiny since 1972; (2) started slowly because Agency, Congressional, public, and industry resources were placed elsewhere; (3) progressed fitfully at times due to insufficient data, lack of agency expertise, and inflexible requirements sometimes forced upon the states; but (4) has nontheless shown progress and evolved to the point where the states are ready, with additional guidance, to implement the next stage of the nation's water pollution control program.

The nature of this additional guidance is the subject of both EPA's October 29, 1982 proposed regulations, as well as Section 6 of S. 431. We welcome both initiatives as needed opportunities to discuss the role of water quality standards (in site-specific regulation) after the implementation -- now near to completion -- of uniform, nationwide, technology-based controls.

IV. API/NFPA Support the Basic Thrust of EPA's October 29, 1982 Water Quality Standards Regulations

As mentioned earlier, EPA is revising the existing regulations, found at 40 CFR Parts 120 and 35, which set forth the requirements for the development of state water quality standards. The Agency last promulgated these regulations without revision on May 23, 1979 (44 Fed. Reg. 30016). The regulations have not been materially changed since November, 1975. A close comparison of the October 29, 1982 proposal and the existing 1979 regulations shows that the proposed changes are relatively modest in number and impact.

In describing the October 29, proposal, EPA noted in the preamble to the regulations that:

> "The proposed changes reflect experiences gained in the program by both EPA and the States. The changes increase the flexibility of the States to:
>
> . Review and revise, as appropriate, water quality standards on priority water bodies or segments as necessary rather than reviewing all standards statewide every three years;
>
> . set site-specific criteria rather than adopt Section 304(a) criteria guidance;

> . remove or modify impaired uses based on analyses of the attainability of the uses and on benefit-cost assessments, if appropriate, rather than maintain use designations which cannot be met.
>
> These changes will enable States to use water quality standards as a pragmatic tool in improving water quality where necessary to protect water uses." (47 Fed. Reg. 49234).

Thus, EPA's proposal represents one attempt to reflect the maturation of the program by providing additional flexibility to develop site-specific standards which reflect local water quality conditions on priority water bodies. However, neither the specific language, nor all of the concepts in EPA's proposal are sacrosanct. Rather, they are portions of an Agency proposal which will undoubtedly change as the rulemaking proceeds. EPA's proposed regulations have been, and will continue to be, subject to public and Congressional scrutiny as the Agency moves forward.

As proposed on October 29, the regulations clarify the Agency's current policy on water quality standards in four major areas: (1) the states are asked to focus on priority stream segments rather than looking at all standards every three years; (2) EPA elaborates on the circumstances under which a state may or may not modify a designated use after analyzing environmental and physical factors impacting the attainment of the use, and assessing the economic impact, as well as the benefits and costs, of attaining the use; (3) the states are encouraged and provided guidance to set site-specific water quality criteria to drive standards decisions; and (4) EPA clarifies the antidegradation policy to focus on the maintenance of stream uses rather than inflexible, and often meaningless numerical measures of ambient water quality. API/NFPA see merit in the general concepts embodied in these changes.

Perhaps more important in light of the public concern over the regulations, it is useful to digress momentarily to define clearly what EPA's proposal does not do. It does not alter technology-based standards for BPT, BCT, or BAT. Moreover, the proposal does not alter technology-based, new source performance standards which require best available demonstrated technology. EPA's proposed regulations do not allow alteration of existing stream uses. Nor does the proposal allow alteration of designated uses which have not been attained, if they can be achieved in a economically and technically feasible fashion. The proposal does not permit degradation of high quality existing stream uses to accommodate growth. Finally, EPA's proposed regulations do not require the states to modify existing water quality criteria, designated uses, or water quality standards. Rather, EPA's proposal merely provides the states with additional flexibility in the standards setting process.

A. EPA's Proposal to Encourage the States to Concentrate on Priority Stream Segments Will Result in the Timely Development of Meaningful Water Quality Standards

The existing requirement that the states must review and revise water quality standards for all stream segments at least once every three years, has not fostered the necessarily-detailed review and revision of standards on stream segments where water quality problems persist, or which deserve to be upgraded. Rather, this "look-at-everything" approach expended valuable state and federal resources in an attempt to broadly review all of a state's water quality standards. API/NPPA, thus, concur with EPA's proposal to modify this requirement by encouraging the states to set priorities.

The 1972 Act, in our view, provides the flexibility for the states to: (1) review only those stream segments where water quality standards must serve an important regulatory function at a particular point in time; and (2) establish priorities with respect to these segments to deal with the most important first in order to address water quality problems that exist after the implementation of national, technology-based effluent limitations. This flexibility will be essential to the effective use of the water quality standards program as a tool for regulatory decision making.

B. For the Most Part, EPA's Proposal Outlines Appropriate Situations and Reasonable Procedures Governing Changes in Designated Uses

In Section 131.10(h) of the proposed regulations, EPA sets forth the circumstances under which designated uses which are not being met may be removed. This proposal elaborates on -- but does not materially change -- existing Agency policy now found at Section 35.1550(c)(3) of the current regulations.

The proposed regulations indicate that a state may remove a designated use where: (1) naturally occurring pollutant concentrations prevent the attainment of the use; (2) natural ephemeral, intermittent, or low flow conditions or water levels prevent survival of fish and aquatic life; (3) human-caused conditions or sources of pollution cannot be remedied; (4) dams, diversions, or other types of hydrologic modifications interfere with the attainment of the use; (5) physical conditions unrelated to water quality preclude attainment of the use; or (6) benefits of attaining the use do not bear a reasonable relationship to the costs.

Each of these six carefully crafted conditions reflects instances where Section 101(a)(1) of the 1972 Act would suggest that the goal of fishable and swimmable waters is not attainable. Moreover, the sixth condition (which, to date, has been the most controversial) is designed to reflect the intent embodied in Section 302(b)(2) of the Act through a less administratively cumbersome process.

Looking first at this most controversial condition, Section 302 of the Act establishes the procedures under which the EPA Administrator or state water quality agencies devise effluent treatment requirements, beyond the national technology-based standards, on specific stream segments where needed to meet water quality standards. Before setting effluent limitations more stringent than the technology-based limitations under Sections 301(b)(2)(A) and (B), the Administrator or state must, under provisions of Section 302(b)(1):

> "Determine the relationship of the economic and social costs of achieving such limitation or limitations, including any economic or social dislocation in the affected community or communities to the social and economic benefits to be obtained (including the attainment of the objective of this Act)."

Further, Section 302(b)(2) indicates that there must be, "a reasonable relationship between the economic and social costs and the benefits to be obtained (including attainment of the objective of this Act)."

In 1972, it was well recognized that control measures beyond Section 301(b)(2)(A) and (B) technology-based requirements will, in some cases, be

quite costly. The water quality benefits to be obtained by imposing these controls would sometimes not justify such costs. Consequently, the statute provides a procedure to make a type of economic reasonableness determination under Section 302. If the costs are out of line with the water quality benefits to be obtained, the additional treatment requirements will not be imposed and the water quality standards will not be met.

Thus, this controversial EPA guidance is nothing more than an attempt by the Agency to develop a mechanism — justified in the Act — which allows, but does not require, states to determine whether or not there is reasonable relationship between the costs and benefits of requiring controls more stringent than technology-based requirements to achieve water quality standards. The approach proposed by EPA is similar to that already used by at least 15 states as part of their water quality standards setting process.

API/NPPA support this guidance as a reasonable attempt to assess the utility of control requirements beyond BAT/BCT limitations. In our view, this proposal is technically superior to EPA's existing regulations which have proven unworkable and perhaps unrealistic. For example, the current rules allow water quality standards to be modified only when:

> "The application of effluent limitations for existing sources more stringent than those required pursuant to Section 301(b)(2)(A) and (B) of the Act in order to obtain the existing designated use would result in substantial and wide-spread economic impact."

The Agency's existing policy was further restricted by EPA's November 1976 Guidelines for State and Areawide Water Quality Management Development when EPA indicated that, in order for uses to be altered:

> "The adverse economic and social impacts resulting specifically from imposition of the controls, and reflected in primary and secondary unemployment impacts, plant closures, changes in governmental fiscal base, and other area economic indicators, are substantial and widespread in comparison to other economic factors affecting the area's economy, to national economic conditions and fluctuations, and can be expected to persist for periods longer than provided for by adjustment payments such as unemployment compensation; and they are detectable in an area appropriate for measurement, at least as large as a county or SMSA and, if appropriate, any larger economic areas such as defined by the Bureau of Economic Analysis, United States Department of Commerce. In making a determination of substantial impact, the positive economic and social impact of enhanced water quality must be evaluated." (Page 5-9).

The existing policy described above does not suggest a "reasonable relationship" between benefits and costs, as required by Section 302. EPA's proposal better articulates an economic reasonableness standard which can be responsibly and effectively implemented by the states. Moreover, EPA's proposal is consistent with requirements already embodied in the statute, and is familiar to a number of states.

Looking more generally at the six circumstances under which EPA suggests that designated uses may be altered, we have noted substantial public concern that EPA's proposal will result in water quality degradation. In response to these concerns, API/NFPA note first that EPA has carefully defined circumstances under which use modifications will not be permitted.

In Section 131.10(i) these circumstances include a use which currently exists, or which will be attained by implementing technology-based effluent limitations. Moreover, this Section prohibits revisions that are based on

anticipated growth, or that would directly or indirectly result in impairment of downstream uses. Finally, this Section prohibits use changes in instances where uses will be attained by implementing cost-effective and reasonable Best Management Practices for nonpoint source pollution control.

The last of these restrictions is not explicitly included in the existing regulations. This statement of policy provides a strong incentive for both states and industry to assure effective implementation of reasonable Best Management Practices. Once BMPs have been implemented, the state can then decide whether a use designation change is necessary and warranted. The ambiguity in the existing regulations concerning allowable use changes provides no real incentive for the states to aggressively pursue implementation of Best Management Practices.

Moreoever, EPA's proposal may create situations where industry may be willing to help fund additional education and training programs to insure wider scale BMP implementation. Such an approach by industry could be a cost-effective alternative to more stringent effluent treatment requirements where the additional treatment cost is excessive, or bears no reasonable relationship to the benefits to be obtained.

Finally, the restriction on modifying uses attained by implementing effluent limits required under Sections 301(b)(1) and (2) is very important. In the terms of EPA's proposal, this restriction recognizes that there will be substantial water quality improvement as BCT/BAT limits are more widely implemented through the next round of NPDES permitting over the ensuing two years. This water quality improvement — reflected in uses which will be

achieved when BCT and BAT technologies are installed — will not be modified under the terms of the proposed regulations.

C. API/NFPA Support EPA's Approach to Encouraging the States to Develop Site-Specific Water Quality Criteria

API/NFPA concur with EPA's decision to encourage states to develop site-specific criteria to reflect local conditions. EPA has properly concluded that the existing Red Book laboratory-derived criteria, developed under Section 304(a), do not always accurately reflect the adverse impact of a pollutant because of the effects of local water quality characteristics or the varying sensitivities of local aquatic communities. In conducting this review, EPA has also recognized that adaptive processes may enable a viable, balanced aquatic community to exist in water with high natural background levels of certain pollutants.

EPA is likewise correct in concluding that the development of site-specific criteria is an important method of taking local conditions — including variations in stream flows over time — into account. This flexibility will ensure that the criteria developed by the states will be adequate to protect properly designated uses, but that they will not be more stringent than needed. EPA requires that any changes to existing criteria must be justified by acceptable scientific procedures.

There have been substantial concerns raised about the states' capability to properly derive site-specific criteria. We note first that EPA's proposal encourages -- but does not require — states to move beyond direct application of the Red Book criteria to the development of site-specific criteria. Second, API/NFPA believe that the advances, described

earlier, in the states' capabilities and the water quality data base make EPA's proposal a timely attempt to move the states toward a fuller utilization of the data that have been collected.

One indication of the capability of states to develop, and properly utilize, site-specific criteria is provided by the testimony of the Georgia Department of Natural Resources (DNR) at the December 7, 1982 EPA hearing on water quality standards. Leonard Ledbetter, Director of the Environmental Protection Division of the Georgia DNR indicated that the state:

> "Has no intention of proposing or allowing changes in the Georgia Water Quality Standards which will in any way detract from the past progress in water pollution abatement in Georgia or in our plans for continued progress in the future. However, the proposed regulations will provide flexibility to Georgia and the other States to improve upon this progress. The flexibility to set site-specific criteria will enable the State to perform stream studies to establish scientifically defensible criteria in a small South Georgia stream with a dissolved oxygen level of 3.4-4.0 mg/l, the proposed regulations will allow this criteria to be established for this stream, but only after the appropriate studies, public hearings and Environmental Protection Agency approval. This, in turn, may permit a city to use a conventional water pollution control facility to achieve the fishing classification rather than invest in expensive advanced treatment facilities to achieve the same result."

D. API/NPPA Support an Antidegradation Program Focused on the Maintenance and Protection of Existing High Quality Stream Uses

EPA's proposed October 29 regulations, like the existing program, base a mandatory antidegradation policy on the protection and maintenance of existing uses. According to the provisions of the proposed regulations, once the state determines that a use is being attained, it cannot be changed to a use requiring less stringent criteria.

EPA's proposal emphasizes the maintenance of a stream use, not individual water quality parameters which might be higher than necessary to protect the use. Under the proposed regulations, a state may modify certain water quality parameters — within the constraint of maintaining existing uses. This flexibility is not as explicitly drawn in the existing regulations. Notwithstanding this increased flexibility, however, the proposed regulations (if finally adopted by EPA) will still require that, once a use has been met, it must continue to be met — regardless of any further growth or development that might occur.

API/NPPA support EPA's proposed antidegradation option as a reasonable clarification of the basic intent of the existing November 1975 policy which has, in some cases, proven inflexible and difficult for the states to administer. EPA's proposed emphasis on the maintenance of existing uses is consistent with the definition of antidegradation, and with the goals of the Clean Water Act.

In our view, any more stringent interpretation of antidegradation — for example, strict maintenance of all measures of instream water quality — is unworkable and inconsistent with the goals and specific program requirements of the Act. Some have argued, and EPA is considering, an option that would require that a state's antidegradation policy must include this type of rigid inflexibility. Embodied in this view is the proposition that the goals of the Act — especially the Section 101(a)(1) zero discharge goal — require an antidegradation policy which allows no decrease whatsoever in ambient water quality.

Such an inflexible antidegradation policy would make irrevelant the detailed and carefully-crafted economic balancing and variance provisions found in Sections 301, 302, 303, 304, and 316 of the Standards and Enforcement Title of the Act. Clearly, if the Act is to be read literally to require strict antidegradation, and ultimately zero discharge of all pollutants, none of these provisions would have any meaning.

V. API/NFPA Have Reservations Over Section 6 of S. 431

As noted earlier, Section 6 of S. 431 requires that state water quality standards, "maintain as a minimum use the designated use existing on January 1, 1983." We suspect that this amendment reflects a concern that EPA's October 29, 1982 proposal may allow for unwarranted downgrading of water quality.

From the above review of the basic concepts embodied in EPA's proposal, we do not believe that the regulations will either: (1) allow downgrading of existing stream uses; or (2) authorize unwarranted or unjustified changes to designated uses which have not yet been achieved.

Moreover, API/NFPA have four major concerns with Section 6 of S. 431: (1) Congressional action should move forward, if necessary, after EPA has an opportunity to explain the rationale behind its proposal, and make changes to respond to public comments on the proposed regulations; (2) the amendment could work to freeze in place a number of uses designated without adequate stream data or analysis, and often forced on unwilling states; (3) a

mandatory, national designated use requirement would substantially alter the federal-state division of responsibilities which has existed since 1965 for developing water quality standards; and (4) locking existing designated uses in place could undermine the standards process, in a number of cases, by increasing the pressure on EPA and the states to issue economic waivers from water quality-based requirements.

A. Any Legislative Action Necessitated by EPA's Changes to the Existing Water Quality Standards Program Would be Better Timed After the Promulgation of Final EPA Regulations

As indicated earlier, EPA's October 29, 1982 proposed regulations represent the first critical review of the water quality standards program in ten years. The proposal is a good faith attempt to incorporate the experience with the program gained during the past decade.

Nevertheless, during the extensive public review that EPA provided on the regulations, a number of concerns were raised both about changes that were not proposed as well as those that were. The body of public comment on the regulations presently includes more than 1,400 letters. The Agency has already suggested during recent House of Representatives oversight hearings that the regulations will be revised to reflect a number of the public comments.

API/NFPA welcome Congressional oversight and action, if necessary, on the water quality standards program. However, we believe that such a review should commence after: (1) EPA has an opportunity to analyze the public comments; (2) make necessary — and perhaps substantial — changes to the

proposal; and (3) frame final regulations to serve as a predicate for any necessary Congressional action. API/NPPA urge deferral of legislative action on water quality standards until EPA has an opportunity to complete its regulatory assessment of the program.

B. S .431 Would Freeze Into Place a Number of Designated Uses that Were Poorly Developed, Without Adequate Stream Data, and Which May not be Attainable

We noted earlier that a number of state water quality criteria developed in the early and mid 1970's were derived using laboratory-based criteria without site-specific stream data or opportunity for peer review. EPA's and the states' analyses confirm the existence of this problem, while recognizing that additional experience and data acquired since can be used to develop more meaningful criteria.

Similarly, a number of current designated uses were developed without sufficient site-specific stream data or adequate water quality analysis. These designated uses may, in many cases, be unattainable -- even after the application of technology-based controls, nonpoint source BMP's, and secondary treatment for municipalities. The problem with S. 431 is that it would freeze these uses into place discouraging the states from collecting site-specific data to: (1) evaluate and, if necessary, modify the designated uses; and (2) modify the laboratory derived criteria. S. 431 would, thus, prevent the state water quality standards from being easily used as an enforcement tool. Without a more detailed assessment of the areas that would be impacted by S. 431, Congress is, in a single motion, locking in place designated uses developed by the states under duress, without adequate stream

data. Also problematic is the discouraging effect this amendment will have with respect to the further development and utility of state water quality monitoring programs.

S. 431 attempts to impose a steady-state goal onto a system that has varied, and will continue to vary, over time. In this context, it does not help to further our understanding of the complexity of diverse stream systems.

C. A Mandatory, National Designated Use Would Substantially Alter the Federal/State Division of Responsibility for Water Quality Maintenance and Enhancement that Has Existed Since 1965

Since 1965, it has been recognized that the appropriate federal role in the water quality area includes: (1) the development of water quality criteria and other technical guidance; and (2) the review and approval of state water quality standards. The states were given the responsibility for defining stream uses, reflecting these in stream criteria, and promulgating water quality standards.

In 1972, the federal government took on the additional roles of: (1) developing uniform, national, technology-based effluent guidelines; and (2) administering the NPDES discharge permit program until it is delegated to the states. The states retained the responsibility for developing water quality standards.

S. 431 fundamentally changes this partnership. By freezing existing designated uses in place, Congress — not EPA or the states — would take on the dominant role in the state water quality standards setting process.

Assumption of this responsibility would make Congress the forum, on a continuing basis, for entertaining suggested changes to each state's water quality standards.

Congress may elect to take on this burdensome role. However, API/NFPA believe that the wisdom and efficacy of such an approach are dubious and should, at a minimum, be subject to detailed analysis. API/NFPA could not support such a fundamental and long term change in the Act without a more critical assessment of its impacts on the efficient administration of the water quality standards program.

D. Locking Existing Designated Uses in Place Will Increase the Pressure on EPA and the States to Issue Economic Waivers from Improperly Derived Water Quality-Based Requirements

If S. 431 succeeds in freezing a number of unattainable designated uses in place, dischargers will be faced with treatment requirements for which — under the terms of Section 302(b)(2) — there is "no reasonable relationship between the economic and social costs and the benefits to be obtained." In these cases, dischargers will apply to EPA for Section 302(b) economic waivers. By removing the flexibility for the states to modify designated uses which are clearly not attainable, Congress may force EPA to review a substantial number of Section 302(b) waivers. Rather than dealing with the problem at the state level on a stream segment-by-stream segment basis, S. 431 would force resolution of the problem to the federal level on a discharger-by-discharger basis, with an extended review of each permit.

S. 431 would, thus, transform Section 302(b) from a waiver process which is seldom used (and then only in extraordinary circumstances) into a process with numerous industry and municipal applicants. The resource implications of this change should be considered before legislative action proceeds.

V. Conclusion

In conclusion, while we have reservations about the need for Congressional action on the water quality standards program at this time, we do welcome Congressional oversight on this important matter. In addition, we concur with the Subcommittee that modest changes in other areas of the Act are needed.

In our view, S. 431 will go a long way toward eliminating the delays and complexities in the federal water pollution control program. Specifically, we concur with the general thrust of a number of the provisions of S. 431, including those which: (1) provide for a multiple-year reauthorization of the Act; (2) extend the BAT/BCT compliance dates; (3) simplify the pretreatment program; (4) provide for partial delegation of the NPDES program; and (5) require an assessment of the effectiveness of current nonpoint source pollution control efforts.

We reaffirm our support for the 1972 Federal Water Pollution Control Act and the water pollution control programs that have resulted since its passage. We believe that the 1972 Act and its 1977 amendments provide the

proper basis for additional water quality improvement as we move into the decade of the 1980's. At the same time, we agree with the Subcommittee that modest refinements to a number of Clean Water Act programs will enhance, rather that inhibit, this desirable goal.

Mr. Chairman, I would like to thank this Subcommittee for the opportunity to testify. I will be happy to answer any questions you may have.

CASE STUDY A -- PLYMOUTH, NORTH CAROLINA

In the mid-1970's, Welsh Creek near Plymouth, North Carolina was one of a number of water courses which had been classified by the state for uses less than the support of fish and aquatic life. The creek originates as drainage from a swamp. At the point in question here, it is largely a backwater of the Roanoke River. Flow through the creek is often near zero. It is further characterized as being dark color, low pH, and of elevated temperature. Under natural conditions, dissolved oxygen (DO) periodically approaches zero. Clearly, the creek is naturally incapable of supporting an aquatic community. Accordingly, the state assigned a DO criterion lower than required for aquatic life.

Nevertheless, EPA insisted that the creek be classified for the support of fish, and carry with it a commensurate DO criterion. This was reportedly based on a rationale that: (1) some water quality parameters were consistent with such a use; and (2) a variance could be sought for those parameters which were inconsistent. As a result, the state accepted the Agency recommendation. A pulp and paper mill discharging to the creek sought a variance. Recognizing the character of Welsh Creek, the state responded by lowering the dissolved oxygen requirement.

However, the variance was rejected by EPA on the basis that its criteria for granting such a variance had not been met. EPA further imposed a Federal standard calling for 5.0 mg/l DO level. The mill in question, faced with the futility of maintaining a dissolved oxygen condition which was naturally unattainable, had little recourse but to enter into a compliance agreement wherein effluent would be diverted through a 2 mile pipeline directly to the Roanoke River at a cost of eight million dollars.

CASE STUDY B — KALAMAZOO, MICHIGAN

The Kalamazoo River in the vicinity of Kalamazoo, Michigan has a use classification directed toward protection of fish and aquatic life. Perceived to be consistent with that goal, are dissolved oxygen (DO) criteria for an average DO of 5.0 mg/l and a minimal level of 4.0 mg/l to be met at all times.

To obtain these levels, point source controls have been agressively pursued. They include the construction of an advanced treatment plant serving: (1) Kalamazoo and adjacent communities; and (2) a number of industrial dischargers. Included among the latter are several paper manufacturing facilities.

Several studies carried out in the late 1970's have brought into question whether the required dissolved oxygen criteria will be attained. A 1978 report published by the Michigan Department of Natural Resources points out that:

> "The treatment of oxygen demanding wastes discharged to the Kalamazoo River beyond conventional, stable effluent levels is not cost effective. This is because the DO deficits due to these wastes are small compared to the (algal type) respiration effects on DO. These respiration effects are primarily responsible for limiting the assimilative capacity of the Kalamazoo River."

A 1979 update of the Section 208 Areawide Waste Treatment Plan prepared by the South Central Michigan Planning Council alludes to a contributing factor of significance to the above observation:

> "The phosphorus loading (from non-point sources in sub basin 204 east of Kalamazoo) is well in excess of the levels required to promote nutrient enrichment of surface waters."

Sub basin 204 is a "rural" sub basin. Ninety-three percent of the sub basin consists of crop land, pasture, and forest.

A second factor is identified in a 1981 study on Stormwater Pollution in the City of Kalamazoo prepared under the auspices of the South Central Michigan Planning Council. The study report indicates that the load of oxygen-demanding substances associated with stormwater runoff on typical storm days alone exceeds the assimilative capacity of the Kalamazoo River. Typical storm day conditions were thought to prevail 75 days/year. The report goes on to suggest that:

"Though days of storms will probably not be days of minimum river flows, the (stormwater) BOD5 contribution may cause significant degradation of the river quality for a period of time, perhaps below the allowed standard."
(emphasis added)

Thus, recent information suggests the possibility that nonpoint source loads of BOD and nutrients could, by themselves, cause violations of existing water quality standards (5 ppm DO daily average, at least 4 ppm DO at all times). Additional study will be required to determine the extent to which these nonpoint sources must be controlled to assure compliance with dissolved oxygen standards. The state should be allowed the flexibility to modify the applicable water quality standards in the event that further study demonstrates that existing standards are not attainable due to nonpoint sources that cannot feasibly be controlled.

CASE STUDY C — FLORIDA INTERCOASTAL WATERWAY

Dissolved oxygen is probably the clearest example of a need for flexibility on a local scale. Virtually all investigators will agree on a need to recognize the tremendous natural variations that occur in the case of dissolved oxygen. Dispute arises only when one attempts to establish criteria. We suggest, as is implied in the American Fisheries Society's "Review of the EPA Red Book: Quality Criteria for Water" (Am. Fish. Soc., Bethesda, Maryland, 1979), that no single absolute criteria can ever succeed. Local flexibility must be available for natural local differences and biological needs.

One specific example currently exists in the northern portion of the intercoastal waterway in Florida — a situation with doubtless dozens of counterparts throughout especially the Southeastern portion of the United States. In this area of common natural low dissolved oxygen values, the state of Florida has attempted to accommodate, to a degree, the present national water quality criteria of a minimum of 5 mg/l dissolved oxygen by specifying an average value of 5, with a minimum of 4 mg/l. However, even this "bending" of the national stated minimum is not adequate to reflect truly natural conditions that have been validated as dropping into the 3 mg/l range. Presently ongoing activities by the state to consider "waste load allocations" in this area are certain to result in technically unresolvable questions when national policy forces the state agency to base its decisions on clearly erroneous base lines of water quality.

Dissolved oxygen is the first parameter that comes to mind when one considers criteria differences in water quality. This is an understandable situation in view of the length of time and effort on the study of oxygen. It is likely that, as other parameters are studied in depth, similar problems will evolve.

CASE STUDY D -- MONTICELLO, MISSISSIPPI

As part of its 1973 triennial review of water quality standards, the Mississippi Game and Fish Commission adopted, with subsequent EPA approval, a dissolved oxygen (DO) standard of not less than an average 5.0 mg/l, but allowing an average level as low as 4.0 mg/l for short periods of time during extremely low water levels (i.e. at or less than 7Q10). In April 1977, following the next triennial review, the state chose to submit its existing standard for EPA approval. Unfortunately, EPA disapproved the dissolved oxygen criteria and gave the Mississippi Air and Water Pollution Control Commission until October 1977 to promulgate an appropriate standard. EPA recommended a daily average of 5.0 mg/l and a minimum of 4.0 mg/l. In reconsidering its action, the Commission concluded that the state standard was properly derived and, in the public interest.

EPA responded in July 1978 by formally proposing a DO standard of 5.0 mg/l to be met at all times. A less restrictive criteria ultimately promulgated by the Agency in 1979 requires an average 5.0 mg/l with an instantaneous minimum of not less than 4.0 mg/l. The Agency's authority to take this action was subsequently upheld by the Courts.

At the present time, the Pearl River at Monticello, Mississippi is designated for a use supportive of fish and wildlife. The river does, in fact, support an aquatic community native to the area and would do so under dissolved oxygen conditions represented by the criteria originally submitted by the state. Thus, designating a lesser use is neither warranted nor would it be politically acceptable. Furthermore, in the late 1970's EPA would not likely have accepted a use designation less than support of fish and wildlife.

The fact remains, though, that compliance with the dissolved oxygen criteria has imposed an environmentally unwarranted burden upon a local pulp and paper industry discharger. Even under the state's proposed criteria, the Pearl River at Monticello was recognized to be water quality limited. Effluent limitations to accomodate the dissolved oxygen requirements were met at the local pulp and paper mill through a controlled discharge program. The ability of the mill to contain discharges during the low flow conditions is contingent upon an ability to maximize discharges during high flow periods. Thus an ability to comply with the EPA-imposed DO criteria has been largely a result of higher than normal flows during non critical periods — leaving ample capacity in a 220 acre impoundment to store effluent during the critical periods. Under circumstances where stream flow patterns are more normal, compliance with the water quality criteria is questionable.

ADDITIONAL MATERIAL FOR THE RECORD

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Subcommittee on Environmental Pollution
Committee on Environment and Public Works

of the

United States Senate

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Additional Material for the Record

In the testimony presented as part of the Water Quality Standards Panel, API/NFPA made reference to the extensive review the forest industry had done of the Clean Water Act over the last several years. After concluding that review, we continue to strongly support the Act, and believe only a limited number of changes are warranted to improve its effectiveness.

The Act can be more effectively focused in two ways: (1) eliminating costly and unnecessary requirements which do nothing to improve water quality; and (2) concentrating the decision-making process at the most efficient level of government to deal with a particular program--often the state or local agency.

We support the basic intent of a number of the provisions of S. 431. In addition, we support several of the provisions that were included in the package submitted by the Administration for consideration in the Second Session of the 97th Congress (S. 2652 introduced by request by Senators Chafee, Stafford and Randolph). A number of these proposed amendments would help eliminate costly duplication of effort and would provide the opportunity for greater flexibility and operation of the program.

Both S. 431 and S. 2652 (97th Congress) identify two of the areas of major concern to API/NFPA: (1) simplification of the pretreatment program; and (2) extension of the BAT/BCT compliance deadlines. The Administration proposal also included a third issue of concern to API/NFPA -- the recommendation for extending the life

NPDES permits up to ten years.

In addition to commenting on these proposals, we will also highlight additional areas of concern to API/NFPA -- both issues that should be included in any proposed changes to the Act, and those issues which have been included in S. 431 or the Administration's proposal which we do not support.

I. AMENDMENTS TO THE PRETREATMENT PROGRAM

API/NFPA is pleased that both Section 7 of S. 431 and Section 6 of S. 2562 (97th Congress) recommend changes to the pretreatment program. Changes to this program are considered to be among the most essential by the forest industry, as well as by other groups. The present program is clearly in need of redirection -- it has failed to get off the ground.

A. The Pretreatment Program -- Our Experience to Date

The forest industry supports the general concept of pretreatment of certain industrial wastes, as envisioned in Section 307(b) in the 1972 Federal Water Pollution Control Act. We recognize the need for pretreatment of industrial pollutants that: (1) are not susceptible to treatment in publicly-owned treatment works (POTW); (2) would interfere with the operation of such a municipal system; or (3) would interfere with the intended disposal procedure for the sludge. Consequently, we did not object to EPA's 1973 regulations which implemented, for the first time, the so-called general pretreatment program.

In 1977, Congress amended Section 307(b) to provide POTWs with the opportunity to offer "removal credits" to their industrial clients. These credits would apply to any toxic pollutants which the POTW could effectively treat. Industries gaining removal credits from their POTWs would be able to offset them against their pretreatment requirements for the specified pollutants. EPA was charged with the responsibility of developing regulations to implement the removal credits provision.

The removal credits program, as envisioned by Congress in 1977, was complex but seemed workable. The credits were to serve as an incentive to both industry and the local community to encourage the construction and operation of cost-effective, regional treatment.

API/NFPA supported the removal credits approach in 1977. In our view, this provision was designed to serve as a continuing incentive for local industrial participation in POTW systems. In addition, the removal credits approach was designed to assure that the removal levels which justified the local credits would be maintained by the POTW through the operation of a sound operation and maintenance program, as well as an effective pretreatment program. Thus, the removal credits approach was designed to result in better POTW operation as well.

Unfortunately, after EPA repromulgated the general pretreatment regulations in June 1978, it became obvious that their interpretation of the law was considerably different from ours. EPA failed to consult with the POTWs or to take into account the basic needs of local agencies in framing these regulations. The regulations EPA proposed for removal credits were so complex and burdensome as to be unworkable. In addition, EPA has, in some instances, encouraged local POTWs to force long-term industrial customers to install pretreatment for fully compatible pollutants such as Biochemical Oxygen Demand (BOD). This 1978 policy disregarded the stated objective of the act to encourage joint treatment of compatible wastes, and is of great concern to our industry.

Litigation, followed by settlement negotiations, appeared for a time to have solved the worst of these problems. However, EPA failed to effectively implement the negotiated settlement with respect to compatible pollutants in the January 28, 1981 general pretreatment regulations. In addition, there is evidence that municipal treatment authorities such as Los Angeles and Chicago have been convinced by EPA that it would be futile for them to implement the removal credit system. On September 28, 1982, EPA published a proposal to revise the removal credit portion of the general pretreatment regulations.

EPA made a considerable number of improvements in the removal credits proposal. API/NFPA are most appreciative of the Agency's efforts to remedy the problems associated with the program.

However, the proposed regulations, while reducing some of the complexities of the January 28, 1981 regulations, do not resolve the basic problems associated with the program.

The proposed removal credit system allows POTWs to calculate removal of seven toxic heavy metals plus cyanide on the bases of a "national removal rate" rather than having to develop their own credit figure. While the "national removal credit" will greatly reduce the demands on a POTW to develop its own credits, the list is extremely limited in size, and is further constrained by requiring compliance with secondary treatment to use the "national credits." EPA estimates that more than 45% of all POTWs will be able to qualify for the national rates. AMSA, however, estimates that the percentages will be for lower than 45%.

The proposal, while simplier than the old removal, is still considered to be too complex by the Association of Metropolitan Sewerage Agencies (AMSA). Without the willingness and ability of major POTWs to apply for, and implement removal credit system, the program will simply not work, confounding the Congressional intention to avoid redundant treatment.

API/NPPA commend EPA for the Agency's effort to correct a number of faults of the removal credits program. However, the problems associated with the removal credits are merely reflective of the basic flaws of the pretreatment program. In order to assure continued water quality improvement without the burdensome and redundant program requirements, red tape and unnecessary treatment we believe the issue can only be effectively resolved through

legislative change. Specifically, API/NFPA have two major concerns with the current pretreatment program: (1) we have no assurance that EPA will not force the POTW to require pretreatment of compatible pollutants; and (2) the toxics regulatory scheme requires redundant treatment of toxics, and does not have the support of the local agencies.

B. Redundant Treatment of Compatible Pollutants Must be Avoided

In general, API/NFPA members that discharge into POTWs do not discharge toxic pollutants. Most of our industry effluents are characterized by the presence of conventional pollutants such as Biochemical Oxygen Demand (BOD) or total suspended solids. These pollutants are similar in many respects to domestic wastes, and are compatible with POTW treatment capabilities. Thus, EPA's policy, which continues to encourage or require pretreatment of these conventional wastes, is of critical concern to API/NFPA.

The House/Senate Conference Report accompanying the 1972 Act clearly states:

> "Pretreatment of biological waste that is compatible with the treatment provided by a publicly-owned waste treatment plant into which such waste is introduced may not be necessary....In no event is it intended that pretreatment facilities be required for compatible wastes as a substitute for adequate municipal waste treatment works." (Leg. History; 1972 FWPCA; Vol.1; Page 313.)

In our view, Congress was correct in encouraging the joint treatment of similar municipal and industrial wastes wherever possible, as the most cost-effective approach to regional treatment

needs. In some cases there is also a technical benefit to this approach. Many industrial wastes, although highly treatment and biodegradable in biological system, lack nutrients such as nitrogen and phosphorus compounds. Domestic wastes have an excess of these compounds. It is, therefore, a very efficient way to treat both categories of wastes to mix them in a common treatment facility.

However, EPA's practice since 1978 has been to encourage cities with inadequate or poorly operated POTWs to require pretreatment of conventional pollutants in order to force some of their customers to pretreat rather than to correct the problems of the POTW. Appendix A of our testimony provides a case study outlining this problem.

API/NFPA recognize that in some instances (for example: large volume, seasonal discharges), it may be less costly to require corrective measures at the industrial facility than to increase the size of a POTW. In addition, large, intermittent discharges of compatible pollutants may be disruptive to some POTWs and may require some form of flow containment and controlled release. However, this determination is best left to individual communities, based on local circumstances. This is clearly a local issue -- not a matter that should be prejudiced by an EPA policy.

At the time of the 1979 settlement agreement discussed above, EPA agreed to include the following comment in the revised regulations:

> "This provision is not intended to require pretreatment for compatible wastes as a substitute for adequate municipal treatment. When difficulties arrive in meeting NPDES permit conditions, it is the responsibility of the POTW to come into compliance with its permit. The POTW should consider a solution that is cost-effective and equitable and consistent with the goal of joint treatment."

As you may note, this comment is very similar to the language quoted earlier from the 1972 Act's Conference Report, and it did not introduce a new or radical concept of to the program. However, in the January 28, 1981 revised final regulations, EPA removed without reasonable explanation the above comment from the body of the regulations and simply noted in the preamble that it had been removed.

We are pleased that language has been included in both the proposed Senate pretreatment amendment, and the Administration's "short bill" proposed in 1982 which makes it clear that Congress does not intend EPA to require pretreatment of compatible pollutants that could reasonably be handled by a well designed or operated POTW. The language included in Section 7(d) of S. 431 amending Section 402 by adding a new subsection (m) includes what appears to be an inadvertent transposition of several sentences. We would urge the Subcommittee to correct this technical error.

C. Priority Pollutants -- A More Efficient Approach is Needed

As indicated previously, priority or toxic pollutants are not a major issue for our industry. However, we do have some

potential concerns in this area. Moreover, we believe that EPA cannot implement a workable pretreatment program until there is a more effective, appropriate means of addressing controls for toxic pollutants. The complexity and rigidity of the current pretreatment program will only produce more delays in implementing any pretreatment program for toxic pollutants.

EPA acknowledges that, in the effort to develop a national program, the Agency unnecessarily confounded what was a relatively clear Congressional intent. Other reviewers of the pretreatment program have come to similar conclusions. The House Public Works and Transporation's Oversight and Review Subcommittee concluded in December 1980 that:

> "the [pretreatment] requirements are unworkable...and certain to lead to costs totally out of proportion to any environmental benefits derived."

Further, in testimony before this Committee last year, the Agency expressed their concerns that the pretreatment program lacks the "flexibility to recognize and reward local responsibility and expertise, or to provide incentives for expansion of the state and local role."

The Deputy Administrator, in his testimony in July 1982, noted:

> "Municipalities and local authorities have come a long way in developing experience and ability to address local pollution control problems. We estimate that 80 percent of the large POTWs and 39 percent of the smaller POTWs have made substantial progress towards instituting adequate local pretreatment programs. Furthermore, our estimates indicate that 65 percent of the heavy metals and 37 percent of the toxic organics from indirect industrial discharges are currently being removed through local pretreatment efforts."

It is important to note that these are 1982 figures. Additional POTWs have implemented their pretreatment programs in the past year.

Local POTWs should have the opportunity to demonstrate their ability to control toxic discharges. We supported the Administration's proposed changes to the pretreatment program in 1982 (both the May 28 proposal, as well as the revised provision proposed in September 1982), and support the concepts embodied in Section 7 of S. 431 as well. Both provisions recognize that a properly operated POTW, with sufficient safeguards, including adequate monitoring and enforcement can effectively implement a pretreatment program.

While we believe the Administration's September 1982 proposal is a more realistic approach to resolving the problems of the program, with some further clarifications and expansions, the Senate program could also provide the necessary relief from unnecessary duplication of treatment. However, Section 7 of S. 431 is so tightly drawn as to severely limit the number of POTWs that could apply currently for the program and further it prohibits any future application.

We share this subcommittee's concerns that the pretreatment program must be implemented within a reasonable period of time. However, we also would suggest that such a limited "window of opportunity" will preclude considerable numbers of otherwise qualified POTWs from applying for the "alternative local pretreatment system."

A number of communities have moved ahead with development if their local systems. Others, however, due to the delays in federal funding, and the uncertainty, complexity and confusion that has plagued the program, have not yet implemented their local pretreatment program. S. 431 has a severely limited application time (communities would have only 120 days to make application after enactment of the Act) and further limits application only to those POTWs currently meeting secondary treatment requirements. These two provisions alone would likely preclude all but a few POTWs.

The limited time constraint is inconsistent with the secondary treatment compliance deadline for POTWs as established in the 1981 Construction Grants Amendments to the Clean Water Act. The Congress extended the POTW secondary compliance date to July 1, 1988 in recognition of the initial start-up and funding delays in the program. POTWs are moving on a schedule to meet the 1988 date. The provision in S. 431, in effect, would repeal that deadline for any community wishing to apply for the alternative local pretreatment program. API/NFPA recommend that eligibility be expanded to include those POTW's on a compliance schedule for secondary treatment, as well as those meeting secondary.

In addition, there is wide-spread acceptance of the need to provide some extension of industry compliance deadlines in light of the delays in implementing the effluent guidelines for industry. The current deadline of July 1, 1984 is unrealistic for those industries who are only now receiving their guidelines. General rule of thumb acknowledges a reasonable period of time (not to

exceed three years) for installation of treatment systems. Similarly, indirect discharges need a reasonable period of time to install any necessary pretreatment equipment under the alternative local pretreatment system as well. Present law acknowledges the necessity of this start-up time in that the categorical standards may have up to three years to reach compliance after promulgation of the guidelines. The majority of the categorical pretreatment standards will not be promulgated until late 1984-85, so compliance with the bulk of the standards would not occur until approximately 1988. Such time is not provided in the limited "window of opportunity" in S. 431. Nor, is it not clear what length of time would be available for an indirect discharger to meet the national categorical standards in the event a POTW did not receive approval for their alternative system. Therefore, API/NFPA recommend that if this subcommittee believes it is imperative to limit the time of application and initial implementation of the alternative local pretreatment system, we would recommend the date of July 1, 1988 to assure consistency within the pretreatment program and with the secondary treatment compliance date for POTWs.

Perhaps it is an oversight but S. 431 does not address the question of POTWs future application for an alternative local pretreatment system. Based on the list of pollutants to be published by the Agency, a number of communities may, at the present time, have no reason to apply within the 120 day application period. However, in the case of those communities attempting to rebuild and encourage industrial growth (such as the Northeast), it is quite

possible that at some future time new industry may wish to locate in the community.

Local land constraints may preclude the industry from self-treating on site, and without a "grandson" provision the POTW would be unable to add the industry to their system without accepting the complexities of the "national removal credit system." Therefore, API/NFPA urge that a "reopener" or "grandson" be included in any pretreatment legislation.

Finally, we have concerns with the proposed requirement in Section 7 that "Designated uses existing on January 1, 1983, shall at a minimum be maintained." Rather than repeat the specifics of our objections to a freeze on water quality standards, we would refer the reader to the extensive testimony presented by Mr. Rod Glover in behalf of API/NFPA on April 7, 1983 before this subcommittee.

II. BAT/BCT INDUSTRIAL COMPLIANCE DEADLINE EXTENSION

S. 431, S. 432 and the Administration's 1982 proposal present three approaches to extension of the current deadline for industrial compliance with Best Available Technology (BAT) and Best Conventional Technology (BCT) effluent guidelines.

S. 431 requires that BAT and BCT guidelines must be met by July 1, 1987. The Administration's 1982 proposal extend the deadline until July 1, 1988. S. 432 extends the deadline, but in a somewhat different manner -- the time extension is keyed to a specific time after reauthorization, permit issuance or guidelines promulgation.

These proposals to extend the deadline compliance dates are realistic responses which take into account the delays experienced by EPA in promulgating BAT/BCT effluent guidelines. Simply stated, industry will have insufficient time to meet the present compliance deadline (July 1, 1984) based upon EPA's published time schedule for promulgating the BAT/BCT effluent guidelines.

Two of these proposals will provide industry with sufficient lead time to construct the necessary treatment facilities to come into compliance with BCT and BAT effluent guidelines once they are issued. API/NFPA support the proposition that an industry should be granted the necessary three years from the date of promulgation to install necessary technology. The deadline proposed in S. 431 (July 1, 1987) would not allow a three year period for those industries whose final guidelines were not promulgated by July 1, 1984. API/NFPA would urge the subcommittee to review the progress of EPA's promulgation of those guidelines and adopt a deadline extension allowing for that sufficient period of time.

III. EFFECTIVE ADMINISTRATION OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

The National Pollutant Discharge Elimination System (NPDES) -- perhaps more than any other Clean Water Act program -- has been complicated by judicial decisions, numerous, and often conflicting, administrative reforms, rulemaking, and judicial action. Under current procedures, it may take up to three years to negotiate a five year NPDES permit for an industrial facility.

API/NFPA support three changes which would be clearly useful

in making the permit program more efficient. In our view, the impact of these changes on the NPDES program is minimal. They would still assure necessary environmental protection.

First, the term of an NPDES permit should be extended up to ten years. This proposal is reflected in Section 10 of the Administration's 1982 proposed amendments (S. 2652). For EPA and the state agencies assigned the responsibility of issuing NPDES permits, extending the length of the permit would allow the staggering of permit renewals and, thus, reduce the annual permitting workload. This change would also prevent large permit backlogs from accumulating in the future.

In addition, from industry's perspective, the ten year permit would recognize that pollution control investments are expensive, and that once made, the discharger requires a reasonable certainty that his investment will have a useful life before he is required to make a new one. Permits can always be reopened to provide additional control of toxic pollutants if the need arises.

Second, the federal statute should expressly provide that NPDES permits issued under authority delegated by EPA shall remain in force during all administrative and legal procedures attendant to renewal. Under the Administrative Procedures Act, EPA-issued NPDES permits enjoy this protection while permittees negotiate their renewal. However, one-third of the state agencies that have been delegated NPDES permit authority do not have similar provisions in their state programs. Appendix B of our testimony is an EPA list of those states which do not have such a provision. As a consequence,

upon expiration of an existing permit, the permittee in such a state faces an untenable choice of: (1) bearing the risk of operating without an approved permit; or (2) shutting down the facility until the negotiations for permit renewal are completed.

API/NFPA recommend that the Clean Water Act require NPDES-delegated states have an authority similar to that under EPA regulations providing for the extension of NPDES permits during the procedures attendant to permit renewal.

Finally, the time has come to step back and take a look at the proper role that EPA should play in the day-to-day administration and oversight of state-administered NPDES programs. We believe that the NPDES program has reached a sufficient level of maturity at the state level so that EPA review and approval of state-issued NPDES permits are no longer necessary.

Rather, for the states that have effectively administered the NPDES program for more than three years, EPA's responsibility should become one of periodic program audit rather than the review and approval of either all or selected state-issued permits. If the periodic program audit turns up instances of ineffective state permit administration, EPA should have the right (after a hearing) to: (1) withdraw the state's permitting authority, or (2) return to reviewing and approving each state-issued permit for a probationary period.

This change will have two important advantages. First, the program audit would eliminate much of the manpower burden incumbent on EPA review and approval of state-issued NPDES permits. At the

same time, EPA would still be assured an effective oversight role in reviewing state administration of the NPDES program. Second, permittees would no longer be caught in "best engineering judgment" disputes between state and federal permit writers on conditions of the permit not subject to uniform national standards.

We would like to work with the Subcommittee in developing an approach that would provide an option for periodic EPA audits of state NPDES programs, in lieu of EPA review of state-issued NPDES permits.

IV. OTHER ISSUES OF INTEREST TO API/NFPA RAISED BY S. 431, THE ADMINISTRATION'S BILL OR BY OTHERS

We have reviewed those aspects of S.431 and the Administration's 1982 proposed amendments (S. 2652) which we support with some modifications. We would now like to review a number of additional issues of interest to API/NFPA's members.

A. Civil Penalties/Felony Sanctions

Section 7 of the Administration's 1982 proposal would amend Section 309 of the 1977 Act to provide the Administrator with the authority to assess civil penalties of up to $10,000 per day for clear and well documented Clean WAter Act violations which may not be sufficiently serious to require judicial action. In addition, Section 8 of the Administration's 1982 bill amends Section 309 of the Act to provide that dischargers that knowingly violate certain Clean Water Act requirements would be subject to criminal penalties

of up to $50,000 a day and/or imprisonment for up to two years. Both of these changes to the Clean Water Act are advocated by the Department of Justice (DOJ).

Section 7 of S. 431 increases the amount of civil penalties up to $25,000 per day of such violation, but does not grant the Administrator the authority to administratively assess the penalties. Judicial action would still be required. We have no major objections to this amendment.

We support the need for strong enforcement authority to insure compliance with the Act and believe it is already provided. The penalties should be appropriate to the problems being caused. As yet, we have seen no basis in EPA's or DOJ's enforcement experience with the Act over the past ten years to justify the total scope of the 1982 EPA changes. Senator Stafford, the Chairman of this Committee, and others have stated that those who would seek to change this Act must bear a heavy burden of proof to justify those changes. The Administration has not met the burden in this case.

In addition, Section 8 of the Administration's 1982 proposal could result in EPA duplicating, or worse, undercutting state NPDES agency enforcement efforts. There is no useful purpose to be served by EPA initiating a separate enforcement action form that already undertaken by a state permitting agency. We understand that the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) has similar problems with this provision. We endorse their views on this matter.

Before considering adopting of any of these proposals, the

Subcommittee should look very carefully at: (1) the need for these changes; and (2) the way these changes would be implemented in day-to-day enforcement decisions in both NPDES delegated and non-delegated states.

If the need exists to justify the adoption of additional penalty provisions, the legislative history accompany the felony sanctions proposal should make clear the intent stated by EPA that:

> "this provision is intended to address intentional violations of the Act occurring on a regular basis over an extended period of time that result in significant harm to public health or the environment and provide for the imposition of correspondingly stiffer penalties for such actions. This provision is not directed or intended to apply to isolated instances of either unpermitted dischargers or dischargers exceeding permit limitations."

API/NFPA would strongly oppose any increased enforcement authorities which would be used indiscriminately for infrequent, and often unavoidable, minor excursions from NPDES permit limitations. While we are led to believe that this is not the intent of Section 8 of the Administration's bill, we feel that the legislative history should make this clear.

B. The Impact of Clean Water Act Regulatory Programs on the Federal Common Law

We understand that Congress may consider an amendment to the Clean Water Act that would allow suits alleging water pollution damage to be brought under the federal common law of nuisance. API/NFPA would oppose such a provision.

By way of background, a recent Supreme Court decision (Milwaukee vs. Illinois) held that the Clean Water Act preempts available federal common law remedies. During Senate debates on the Municipal Waste Water Treatment Construction Grants Amendments of 1981, the Senate adopted without discussion an amendment to the Clean Water Act to "make it clear that the Clean Water Act and other statutes do not displace, preempt, or in any other way disturb the federal common law."

House Conferees objected to the sudden insertion of the amendments, and it was subsequently withdrawn. In the Conference Report, the Conferees noted "that failure to include this provision is without prejudice," and agreed to "examine further in the next session the best means to accomplish this intent."

The Supreme Court held that the federal common law should apply only when Congress has not "spoken to a particular issue," and recourse to common law becomes a necessary expedient. Such an expedient is not necessary here especially because the Milwaukee decision neither forecloses any course of action available to a plaintiff under state law, nor prohibits a state from imposing effluent restrictions more stringent than federal standards.

Companies who are legally operating under the conditions of their Clean Water Act waste discharge permits conceivably could be subject to a new wave of litigation brought under the federal common law if such an amendment is adopted. Such a provision would allow an affected state or municipality -- and perhaps other private plaintiffs -- to sue in federal court to effectively rewrite

carefully written discharge permits. The amendment would involve the courts ever more deeply in such day-to-day regulatory activities as inspections, enforcement, and standards setting. This would, in effect, undercut the entire NPDES program.

In our view, such an amendment would also subject, to further liability under the uncertain federal common law of nuisance standards, dischargers who in good faith invested significant amounts of capital to comply with the federal and state regulatory programs and their permit requirements. The procedures set forth in the Act for participation by the public in the permit issuing process already provide an adequate opportunity for the identification and weighing of the interest of third parties that may be affected by the discharge. Thus, on the basis of simply equity considerations, the proposed amendment lacks merit.

Some supporters of an amendment to the Clean Water Act have said that the Supreme Court decision is rapidly being extended to an number of other areas of Federal policy. If this does represent a spreading judicial problem, it is one which should be addressed on a much broader basis by the Judiciary Committees in both the Senate and the House, and not through piecemeal amendments to various Federal statutes which may be affected in different ways by the Supreme Court's holding.

C. Section 404 Dredged or Fill Permit Program

One issue that has raised substantial controversy this year is the Section 404 dredged or fill permit program. As the Subcommittee well knows, API/NFPA have been deeply involved, since

1975, in the implementation of the Section 404 program. We have testified on this program in 1975, 1976, 1977, and 1979.

As a result of this Subcommittee's efforts in 1977, many normal forestry, farming and ranching activities are currently exempt from Section 404 permit requirements. Therefore, our industry faces neither the degree of exposure to the program that we did in the past nor the exposure presently faced by some other industry groups.

We support the current effort to make the Section 404 program more efficient through the regulatory reform initatives undertaken by this Administration. We believe, however, that legislative change to the Section 404 program is premature at this time. The regulatory reform process should run its course. The program needs a period of relative administrative stability before a comprehensive Congressional review is begun. Legislative action may ultimately be necessary, but this is an issue that should be addressed by Congress at a later time.

D. Section 302(b)(2) Economic Hearing Requirements

Under the 1977 Clean Water Act, BAT is the most stringent, national, uniform technology based standard. Pollution control requirement more stringent that BAT can visit severe adverse economic impact on manufacturing plants subject to such requirements, and can lead to the loss of jobs in the affected community.

To obviate this possibility, Congress provided, in Section 302(b), the opportunity for a hearing before EPA could require a discharger to go beyond the 1984 BAT level of control for water quality-related reasons. The hearing would be held to balance the relationship between the social and economic benefits of meeting the water quality standard in question against the social and economic costs, including economic dislocations to the affected community. The proposed standard would not be applied by EPA if the benefits of the additional treatment requirements beyond BAT are not worth the costs of their application. API/NPPA view the opportunity for a hearing as an essential part of the process to determine whether additional controls are justified.

Unfortunately, it is not clear that a Section 302(b) hearing is also available to a discharger in those states in which the state administers the NPDES program. This problem is particularly acute now that many states have been delegated authority to run the NPDES program so that final action will be undertaken by the state rather than by EPA. Accordingly, API/NPPA recommend that Congress amend Section 302(b) of the Clean Water Act to make clear that the hearing requirements apply when permitting authority has been delegated by EPA to the state water quality agencies. We look forward to working with the Subcommittee in developing language to implement such an amendment.

IV. CONCLUSION

In conclusion, we reaffirm our support of the 1972 Federal Water Pollution Control Act and the water pollution control programs

its passage. We believe that the 1972 Act and its 1977 amendments provide the proper basis for additional water quality improvement as we move into the decade of the 1980's. At the same time, we agree with the Administration that modes refinements to a number of Clean Water Act programs will enhance, rather than inhibit, this desirable goal. Therefore, we urge rapid Congressional action on the proposals for Clean Water Act amendments.

We look forward to working closely with the Subcommittee during this legislative session to craft modest changes to the Act. We thank the Subcommittee for the opportunity to submit this testimony.

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Appendix A

REDUNDANT TREATMENT OF COMPATIBLE POLLUTANTS
CASE STUDY
MEMPHIS, TENNESSEE

In the fall of 1978, the EPA Regional Office in Atlanta, initated action through the Department of Justice against Memphis, Tennessee for violation of the discharge permit for its wastewater treatment facilities. The violation was accompanied by allegations that the city had not made sufficient progress toward meeting the permit limitations. The city had constructed the facilities in question with a pre-1972 federal grant.

EPA suggested to Memphis that the load of compatible pollutants to the treatment plant from Memphis industries should be reduced so that the plant could meet its limitation. In a subsequent federal court hearing, EPA stated that it would be reasonable for the industries using the Memphis treatment system to be required to reduce the BOD concentrations in their wastewaters to at least a concentration of 250 mg/l.

The city responded to this pressure by influencing the industrial users of Memphis' South Treatment Plant to hire a consultant to study how they could individually or collectively treat their wastewaters to achieve the industrial pretreatment limitations suggested by EPA, and perceived as being necessary. The study concluded that the most economical solution was to increase the capacity of the city's treatment plant.

The city was subsequently prosecuted, and a fine imposed, even though the facility had been constructed with a federal grant. This grant was prior to the enactment of the 1972 law and its requirement universally imposing secondary treatment for municipal systems. The city had constructed the treatment plant with the greatest capacity possible within the limits of the funds available. Memphis then tried to stretch the funds to meet secondary treatment limitations. (At a later date, EPA and the state agreed that Memphis was eligible for additional grants aimed at meeting the 1972 Act's goal.)

The eventual solution to the problem was largely achieved through applying various public and private technicians experienced in plant operational problems to the task for correcting equipment problems in new plants in order to provide increased plant capacity. In the end, the imposition of concentration limit for compatible pollutants was found to be unnecessary, and the city has been successful in meeting its permit.

Obviously correcting operating problems was a much fairer and more economical approach than forcing some long-term customers to pretreat. However, EPA;s advocacy almost forced industrial users of the Memphis system to have to pretreat for compatible pollutants.

Appendix B

DATA ON EXTENSION OF STATE NPDES PERMITS DURING NEGOTIATIONS FOR PERMIT RENEWAL

SUBJECT States that do not provide automatic extension of NPDES permits during negotiations attendent to renewal.

SOURCE Environmental Protection Agency, Industrial Permits Branch, Permits Division.

DATE April, 1983

SUMMARY

- 35 states have NPDES delegated programs.
- 24 of the 35 states have a provision similar to Section 558.C of the Administrative Procedures Act to extend NPDES permits during negotiations attendant to permit renewal.
- Those states (and territory) that do not have such a provision are:

  Connecticut
  Delaware
  Kansas
  Minnesota
  Mississippi
  Missouri
  Nebraska
  Nevada
  Vermont
  Virgin Islands
  Virginia

Association of State and Interstate Water Pollution Control Administrators

ASSOCIATION
of
STATE AND INTERSTATE
WATER POLLUTION CONTROL ADMINISTRATORS

Clean Water Act Reauthorization Testimony

Part I.
Comments on Water Quality Standards
before the
Senate Committee on Environment and Public Works

April 7, 1983

Presented By

J. Leonard Ledbetter,

Director
Georgia Environmental Protection Division

Hall of the States • 444 North Capitol Street, NW, Suite 330 • Washington, D.C. 20001 • (202) 624-7782

Association of State and Interstate
Water Pollution Control Administrators (ASIWPCA)
Comments before the Senate Subcommittee on
Environmental Pollution

Mr. Chairman, Members of the Subcommittee:

I am Leonard Ledbetter, Director of the Environmental Protection Division for the State of Georgia and am here today representing the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) on the issue of Water Quality Standards. More complete ASIWPCA testimony on reauthorization of the Clean Water Act will be submitted before the record closes.

The Association appreciates this opportunity to participate in the reauthorization of the Clean Water Act. The Association commends the Committee for its interest and commitment to the environment.

As professional managers of State Water Programs, ASIWPCA is firmly committed to the environmental objectives set out in the Clean Water Act. The Association is a national non-partisan organization of the State officials who, on a daily basis, implement the Clean Water Act. All 50 States, 6 Interstate Agencies, 3 territories, and the District of Columbia are represented. In their capacity as program managers, States have the benefit of more than 10 years experience implementing the National Water Quality Program.

A. SUMMARY HIGHLIGHTS OF ASIWPCA POSITIONS ON THE CLEAN WATER ACT

Water Quality Standards -- States strongly supportattainment of reasonable water quality goals and believe current law is adequate in this regard. States need flexibility to improve and upgrade Water Quality Standards where they are attainable and to acknowledge where this is not the case if Standards are to provide a rational basis for decision making in planning, management, and enforcement.

Toxicity Elimination and Management Strategy -- A National technically sound process should be established for assessing and controlling toxicity on a facility specific basis. It should be a biologically based protocol to ensure expeditious, adequate protection.

$106 -- ASIWPCA supports the Senate Committee maintenance of the $75 Million authorization level.

Pretreatment -- The provisions of Senate Bill 431 establish a good framework for a workable pretreatment program. The criteria should be broadened somewhat so more communities with good local programs can develop alternatives to the Federal approach. States must have a partnership role in developing and approving equivalent programs.

Compliance Deadlines --

- industrial compliance with BAT should be required no later than 3 years after effluent guideline promulgation. This will greatly enhance program credibility and effectiveness.

- the §301(i) deadline extension should be expanded to cover all municipalities. By July 1985, municipalities should specify how and when compliance will reasonably be achieved.

Partial Delegation -- ASIWPCA supports Senate Bill 431 provisions on partial delegation.

Permit Life -- NPDES permit life should be extended up to 10 years to more efficiently use available resources.

Penalties -- Any expansion of Federal law should not jeopardize approved State delegations.

Construction Grants -- Municipal wastewater treatment remains the major challenge to further Clean Water Act progress. A sustained level of Federal committment is important in that effort.

B. A DECADE OF PROGRESS

The 1972 Amendments to the Clean Water Act made sweeping changes to National policy on industrial and municipal wastewater control, striking a balance between water quality and technology based programs. That strategy, 10 years later, continues to be effective.

In the last decade, tremendous strides have been made in water clean up. Recognizing that this Committee is aware of the December 1982 Lou Harris and Associates report, "A Survey or American Attitudes Toward Water Pollution", we are encouraged to note the results indicate a majority of the public believe State and local levels of government will provide stricter enforcement of water pollution laws.

As many States have demonstrated over the years, State laws and procedures enable us to move more swiftly with enforcement action against polluters. ASIWPCA can assure the members of Congress and the public of a continuing commitment to the Clean Water Act. The States have demonstrated their support of and capabilities to carry out a strong clean water program. The following facts illustrate these points:

- Except for limited stream segments and water bodies, the Nation's waters are fishable/swimmable
- States now manage over 70% of the National Water Program
- Pollution loadings have been substantially reduced:
  - -- in industry ... 69% for BOD
    ... 80% for suspended solids
    ... 80 - 93% for heavy metals
  - -- in municipalities ... 57% for conventional pollutants.
- Billions have been invested by taxpayers and industry in water pollution control

The Association believes that this progress in maintaining and enhancing the quality of our nation's waters is in large part attributable to the State/Federal partnership established in the Act.

C. THE CLEAN WATER ACT -- THE NEXT DECADE

The Association believes the existing law is fundamentally sound and commends the Subcommittee for a limited and focused Senate Bill 431. However, there are additional issues not covered in Senate Bill 431, which the Association believes should be considered. The Association supports additional refinement because statutory flaws in process and procedures remain which tend to obstruct implementation :

- The National program is strangling in red tape
  - Over 50% of NPDES permits have expired and are backlogged due to:
    ...overly burdensome requirements
    ...repeated delays in BAT effluent guideline promulgation.
  - The National Pretreatment program is at a virtual standstill.

o Despite the public's concern over exposure through the environment to toxic chemicals, the Clean Water Act currently has no National strategy for eliminating toxicity

We have learned a great deal since 1972 about pollution, abatement/control, and effective management techniques which is invaluable in making these mid-course refinements. As States came before this Committee in 1972, they were admittedly the reluctant bride. Since that time, however, state water programs have blossomed reaching substantial levels of sophistication and effectiveness.

D. STATE WATER QUALITY STANDARDS

1. BACKGROUND

The State's role and responsibility in establishing Water Quality Standards is an important aspect of the Clean Water Act's State/Federal partnership. Since 1972, the States have gained more than 10 years experience in water quality management using technology-based effluent requirements and Water Quality Standards. Substantial data has been accumulated in the process on developing defensible, credible Water Quality Standards.

Water Quality Standards are not goals but are enforceable requirements. The Association firmly believes that if we continue to implement the goals and objectives of the law in a reasonable, practical way, the American people will be willing to pay for clean water. As this Committee recognized in the 1981 Amendments (P.L.97-117), there is a great deal of standards work which remains to be done.

- Standards were initially established without adequate information as to whether or not they made any sense and very frequently absent good data.

- Congress and the public demand efficient investment of construction grants funds

- Sound defensible standards require significant time and resources to develop.

Recognizing the importance of Water Quality Standards to effective State management of the water quality program, ASIWPCA established a task force in 1979 to address the issues. Working with the Carter Administration, ASIWPCA and US EPA jointly reviewed existing Water Quality Standards regulations and developed specific recommendations for improvement. The ASIWPCA initiative was completed early in the Reagan Administration, with the unanimous membership adoption of a position on Water Quality Standards in August 1981.

2.STATE POSITION

The ASIWPCA position provides that Federal Water Quality Standards regulations must be revised based on these principles:

- States (and Interstate Agencies) have the primary role in establishing standards
- State adopted standards should be presumed protective of water quality -- the burden of proof for disapproval should be on US EPA
- US EPA must assure interstate compatibility and compliance with the Act.
- US EPA has a vital role in providingtechnical information and coordination of Federal interests
- Water quality and quantity are important factors to consider

In addition, ASIWPCA has worked closely with the National Governors' Association to develop policies on various aspects of the Clean Water Act program. In this cooperative effort, NGA also supports continued commitment to a strong clean water program. One portion of NGA policy addresses Water Quality Standards as follows:

> Water Quality Standards, including State variance procedures, should be adopted by State processes. EPA review and approval should be limited to assuring protection of public health and the compatibility of standards on interstate streams (D-26)

The ASIWPCA position should be interpreted so as to:

- Support technology based effluent requirements
- Allow States to develop and implement more stringent requirements
- Continue a strong Antidegradation policy to assure program momentum and prevent "pollution havens"
- Protect downstream and interstate designated uses
- Recognize the State's authority to identify priority water bodies and allocate resources accordingly
- Provide better procedures for State determination of water uses, consistent with language of the Act "... wherever attainable."

- Implement a uniform, equitable US EPA review process for use designation among all Regions. Seasonal variations will help States protect existing uses while still improving water quality through funding to more POTWs.

- Assure protection of supportable aquatic communities

- Develop site specific criteria using the latest data and scientific procedures that reflect local water body conditions and uses

- Recognize the need and value of mixing zone and low flow policy

- Urge US EPA to provide equitable technical assistance in site specific analysis, including acceptance of State advanced waste treatment determinations

- Prevent any reduction in effort or commitment to maintaining improvements that have been so costly and difficult to achieve under the Clean Water Act.

3. SENATE BILL 431

Senate Bill 431 freezes designated uses as of January, 1983. The Association understands the Committee's concern about the future of the water program and the desire to achieve the goals of the Act. However, we are concerned that, without modification, the proposed provision on Water Quality Standards could undermine the implementability and long term credibility of the Clean Water Act.

In most cases designated uses are appropriate but there are other situations where this may not be the case -- for example, uses may to too vaguely defined; or there may be natural background levels, irretrievable man induced conditions, or issues regarding the affordability of advanced waste treatment.

While ASIWPCA has urged some changes to the existing Federal regulation to more accurately reflect the Clean Water Act partnership, the ASIWPCA position has been misinterpreted as fully supporting the US EPA proposed regulations.

ASIWPCA and the individual States do not support weakening the Water Quality Standards or backing away from the Clean Water Act goals. A review of more than 30 State responses and the ASIWPCA position indicates US EPA's proposed regulatory changes need significant modification. Unfortunately OMB and US EPA did not propose regulatory changes wholly consistent with the earlier ASIWPCA recommendations.

We have encouraged retaining the existing antidegradation requirements. We do not consider cost benefit assessment and use attainable analysis appropriate to address in US EPA Water Quality Standards regulations. Furthermore, we have not proposed changes to modify or reclassify designated uses where such uses are attainable by the installation of technology based effluent requirements.

4. ASIWPCA RECOMMENDATION

1) Some limited changes in existing Water Quality Standards regulations are necessary to improvement program administration.

2) Congress, in their oversight role, is encouraged to better focus Water Quality Standards issues and assure sound program administration. However, ASIWPCA feels that legislation at this time is not necessary or desirable.

However should the Congress find otherwise, an exception to Section 6 of Senate Bill 431 should be provided where the proponent State determines for example that the standards or designated uses in effect on January 1, 1983 need further definition or were based on incomplete or inaccurate information.

3) Congress and US EPA must recognize that Water Quality Standards issues involve pretreatment and municipal wastewater treatment. Most industry has installed modern water pollution control facilities-- the remaining task involves a limited number of industries. Therefore, the implementation of a realistic pretreatment program and municipal wastewater treatment remains the major challenge to further Clean Water Act progress.

4) Modification of the Water Quality Standards regulations, in summary, should:

- Continue a strong Antidegradation policy to assure momentum and protection of downstream or interstate designated water uses as well as the protection of waters of specific interest and value in a particular State.

- Assure criteria protect the aquatic community supportable after installation of technology based treatment requirements.

- Use bioassay and biomonitoring to further strengthen criteria and support uses

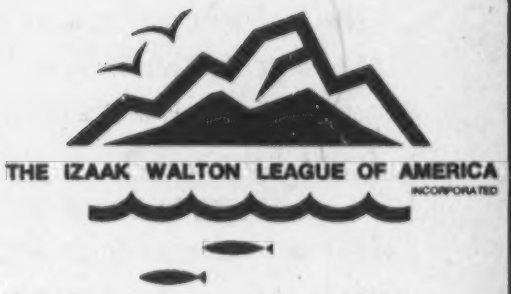
- Recognize the importance and value of general policies, such as mixing zones and low flows

- Accommodate seasonal water uses and assure cost-effective allocation of construction grants funds

- Incorporate procedures to identify and reconsider designated water uses which may be inappropriate (e.g. seasonable uses, criteria modifications)

- Have uniform and equitable US EPA review procedures among all Regions for criteria, uses, and interpretation of Standards application. This is possibly one of the more needed changes.

For Further Discussion of Clean Water Act Reauthorization, including implementation of Water Quality Standards, Elimination of Toxicity, §106 State Management Assistance, and Pretreatment Please Consult The Complete ASIWPCA Testimony which we will provide to the Committee for consideration in the near future.



TESTIMONY OF DAVID ZENTNER
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
ON THE CLEAN WATER ACT
APRIL 7, 1983

National Office: Suite 806, 1800 N. Kent Street, Arlington, Virginia 22209 • Phone 703-528-1818 • IWLA Hotline 703-522-5848

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MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

MY NAME IS DAVID ZENTNER, AND I AM CHAIRMAN OF THE WATER RESOURCES COMMITTE OF THE IZAAK WALTON LEAGUE OF AMERICA, AND AM FORMER EXECUTIVE BOARD CHAIRMAN AND PRESIDENT OF THE LEAGUE. IT IS A PLEASURE TO APPEAR BEFORE YOU BRIEFLY THIS MORNING TO COMMENT ON THE CLEAN WATER ACT, A LAW THAT IS VITAL TO OUR NATION'S EFFORTS TO CLEAN UP OUR RIVERS, LAKES, BAYS AND ESTUARIES. THE IZAAK WALTON LEAGUE IS A NATIONAL CONSERVATION ORGANIZATION LONG DEDICATED TO THE PRINCIPLES EMBODIED IN THE CLEAN WATER ACT. CLEAN WATER REMAINS A HIGH PRIORITY OF THE 50,000 FISHERMEN, HUNTERS AND CONSERVATIONISTS WHO ARE MEMBERS OF THE IZAAK WALTON LEAGUE.

I'VE HAD INDEPTH EXPERIENCE WITH PUBLIC LAW 92-500 AS A MEMBER OF THE ORIGINAL WESTERN LAKE SUPERIOR SANITARY DISTRICT BOARD WHICH OVERSEES THE WATER POLLUTION CONTROL PROJECT SERVING THE DULUTH AREA (MINNESOTA'S SECOND LARGEST) AND AS A MEMBER OF THE MINNESOTA POLLUTION CONTROL AGENCY BOARD. THESE BOARDS ARE DECISION-MAKING BODIES.

THE CLEAN WATER ACT, PASSED IN 1972, GAVE THE FEDERAL GOVERNMENT PRIMARY RESPONSIBILITY FOR SETTING, IMPLEMENTING, AND ENFORCING WATER POLLUTION CONTROLS. AS A RESULT OF THE ACT, CONTROLS ARE NO LONGER BASED ON A CASE-BY-CASE EVALUATION OF THE EFFECTS OF PARTICULAR POLLUTANTS ON A PARTICULAR STREAM--THE "WATER-QUALITY" APPROACH. INSTEAD, UNIFORM MINIMUM LIMITATIONS ON DISCHARGES ARE TO BE SET FOR EACH MAJOR POLLUTING INDUSTRY. THESE UNIFORM STANDARDS ELIMINATE MANY OF THE INEQUITIES AND UNCERTAINTIES OF THE WATER QUALITY SYSTEM. THE NATIONWIDE PROGRAM HAS ENABLED

MY STATE OF MINNESOTA TO DEVELOP AND IMPLEMENT A TOUGH CLEAN WATER PROGRAM WITHOUT FEAR OF LOSING INDUSTRY TO STATES WITH WEAKER PROGRAMS.

THE CLEAN WATER ACT HAS LEAD TO THE CLEAN UP OF SOME OF OUR MOST POLLUTED WATERS IN MINNESOTA, INCLUDING THE ST. LOUIS RIVER, ST. LOUIS BAY AND HYLAND LAKE. IN A 1931 STREAM SURVEY, ALL OF THE MONITORED STREAM SEGMENTS WERE CONSIDERED FISHABLE; IN 1977, ONLY 83% OF THS SITES WERE FISHABLE. NATIONWIDE, THE DEGRADATION OF OUR WATERS HAS HALTED AND POLLUTION LEVELS HAVE REMAINED THE SAME DESPITE A GROWING POPULATION AND ECONOMY.

MOST OF THESE SUCCESSES INVOLVE CLEANING UP CONVENTIONAL POLLUTANTS SUCH AS SUSPENDED SOLIDS, OIL, GREASE, AND OTHERS. PROBLEMS WITH TOXIC CHEMICALS--THE INVISIBLE KILLERS IN OUR WATERS--PERSIST. ALTHOUGHT ~~MANY~~ MOST WATERS IN MINNESOTA ARE NOW CLEAN ENOUGH FOR FISH TO SURVIVE IN THEM, IN SOME WATERS, THE FISH ARE CONTAMINATED BY TOXICS AND UNFIT FOR HUMAN CONSUMPTION.

FOR INSTANCE, MILLIONS OF POUNDS OF POISONOUS HEAVY METALS AND ORGANIC CHEMICALS ARE DISCHARGED EVERY YEAR INTO THE MISSISSIPPI RIVER NEAR MINNEAPOLIS-ST. PAUL. THIS INCLUDES AN ESTIMATED YEARLY DISCHARGE OF 75,000 POUNDS OF LEAD AND NEARLY ONE MILLION POUNDS OF BEHP (BIS(2-ETHYLHEXYL)PHTHALATE). BOTH OF THESE HIGHLY TOXIC SUBSTANCES CAN CAUSE CANCER OR BIRTH DEFECTS IN HUMANS. CLEARLY, WE HAVE A LONG WAY TO GO BEFORE WE HAVE RESTORED OUR WATERS AND MET THE GOALS OF THE CLEAN WATER ACT.

THE CLEAN WATER ACT WAS DESIGNED TO CONTROL POLLUTION IN TWO WAYS. IN ADDITION TO THE UNIFORM EFFLUENT LIMITATIONS, STATES ARE REQUIRED TO SET "WATER QUALITY STANDARDS," WHICH ESTABLISH

LIMITS ON POLLUTION FOR SPECIFIC BODIES OF WATER, BASED ON THEIR OPTIMUM USE. WATERS DESIGNATED FOR USES THAT REQUIRE HIGH QUALITY WATERS--SUCH AS TROUT FISHING--ARE REQUIRED TO BE KEPT CLEANER THAN WATERS TO BE USED FOR LOW-QUALITY USES, SUCH AS NAVIGATION. THESE STATE STANDARDS CAN BE USED AS A SECOND LINE OF DEFENSE IN ACHIEVING CLEAN WATER BY REQUIRING ADDITIONAL POLLUTION CONTROLS WHEN THE MINIMUM FEDERAL EFFLUENT LIMITATIONS FOR EACH OF THE MAJOR POLLUTING INDUSTRIES ARE INADEQUATE TO ACHIEVE CLEAN WATER.

ON OCTOBER 29, 1982, THE ENVIRONMENTAL PROTECTION AGENCY PROPOSED CHANGES IN THESE REGULATIONS THAT COULD HALT, AND PERHAPS REVERSE, TEN YEARS OF PROGRESS IN RESTORING AND PROTECTING OUR WATERS. THESE PROPOSALS ALSO THREATEN FUTURE EFFORTS TO CONTROL DEADLY TOXIC DISCHARGES.

THE IZAAK WALTON LEAGUE OPPOSES EPA'S PROPOSALS TO ALTER THE EXISTING REGULATIONS BECAUSE THEY WOULD:

- ELIMINATE MANDATORY STATE REVIEW OF ALL WATER QUALITY STANDARDS;
- ALLOW STATES TO "DOWNGRADE" OR WEAKEN WATER QUALITY STANDARDS MORE EASILY;
- LIMIT THE "ANTI-DEGRADATION POLICY" TO THE PROTECTION OF EXISTING USES ONLY;
- ALLOW "VARIANCES" OR EXEMPTIONS FOR HEAVILY POLLUTING PLANTS FROM NEEDED POLLUTION CONTROLS;
- REDUCE OPPORTUNITIES FOR PUBLIC PARTICIPATION IN STATE CLEAN WATER PROGRAMS.

TOGETHER, THESE PROPOSALS SIGNAL A MAJOR RETREAT FROM MEETING THE GOALS OF THE CLEAN WATER ACT. I WOULD LIKE TO COMMENT BRIEFLY ON EACH OF THESE PROPOSALS.

PRIORITY REVIEW OF STANDARDS

EPA'S REGULATORY PROPOSALS ELIMINATE BY ADMINISTRATIVE FIAT THE CLEAN WATER ACT REQUIREMENT THAT STATES REVIEW, AND REVISE AS NEEDED, THEIR WATER QUALITY STANDARDS. (CLEAN WATER ACT, SECTION 303(c)(1).) INSTEAD, STATES CAN SELECT "PRIORITY WATER BODIES OR SEGMENTS FOR REVIEW". STATES, UNDER PRESSURE FROM HEAVY DISCHARGERS, COULD LEGALLY AVOID REVIEWING STANDARDS AND CONTROLS ON THE STREAMS WHERE THE DISCHARGERS ARE CAUSING SERIOUS POLLUTION PROBLEMS. STANDARDS ON NONREVIEWED STREAMS WOULD NOT BE UPGRADED EVEN IF SUCH STREAMS BECOME CLEANER SINCE THE STANDARDS WERE LAST REVIEWED. FINALLY, NEW SCIENTIFIC INFORMATION ABOUT WATER QUALITY WOULD ONLY BE INCORPORATED INTO THE WATER STANDARDS OF STREAMS THAT WERE REVIEWED.

IN MINNESOTA, THE MANDATORY THREE YEAR REVIEW OF STANDARDS HAS PROVIDED US THE OPPORTUNITY TO EVALUATE OUR CLEAN WATER PROGRAM, AND IDENTIFY AND ADDRESS PROBLEM STREAM SEGMENTS.

DOWNGRADING WATER QUALITY STANDARDS

NEARLY ALL OF THE NATION'S WATERS ARE DESIGNATED FOR FISHING, SWIMMING OR RECREATION. NINETY SIX PERCENT OF THE 25,000 MILES OF WATERWAYS IN MINNESOTA ARE CLASSIFIED FOR FISHING AND SWIMMING. MEETING THESE USES WILL BE BENEFICIAL BECAUSE MANY PEOPLE IN MINNESOTA DEPEND ON FISHING, BOATING, AND OTHER WATER ACTIVITIES FOR THEIR LIVELIHOOD OR RECREATION. ADDITIONALLY, MEETING THESE USES WILL INDICATE THAT WE ARE ACHIEVING OUR ULTIMATE OBJECTIVE TO "RESTORE AND MAINTAIN THE CHEMICAL, PHYSICAL, AND BIOLOGICAL INTEGRITY OF THE NATION'S WATERS". (CLEAN WATER ACT, SECTION 101 (A).)

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THE CURRENT RULES REQUIRE A STATE TO MAINTAIN EXISTING WATER QUALITY STANDARDS UNLESS IT DEMONSTRATES THAT A STREAM'S DESIGNATED USE CANNOT BE MET BECAUSE THE STREAM IS HOPELESSLY POLLUTED, OR REQUIRING THE CONTROLS NEEDED TO MEET THE USE WOULD CAUSE SUBSTANTIAL AND WIDESPREAD ECONOMIC AND SOCIAL IMPACT.

EPA'S PROPOSALS WOULD REPLACE THESE SIMPLE, STRAIGHTFORWARD RULES WITH REQUIREMENTS FOR DOWNGRADING THAT ARE VAGUE, OPEN-ENDED, AND IN SEVERAL CASES, UNRELATED TO WATER QUALITY. EPA'S PROPOSED REGULATIONS WOULD ALLOW STATES TO PERMANENTLY DOWNGRADE STANDARDS AND ALLOW MORE POLLUTION IF: ABNORMALLY LOW STREAM FLOWS DURING A DRY SPELL CAUSE TEMPORARY REDUCTIONS IN FISH POPULATIONS; A STREAM DESIGNATED FOR SWIMMING IS TOO SHALLOW TO ACTUALLY SWIM IN; THE BENEFITS OF MEETING A STANDARD "DO NOT BEAR A REASONABLE RELATIONSHIP TO THE COSTS". RATHER THAN GOING TO THE TROUBLE OF REQUIRING THE CLEAN UP OF FOULED STREAMS, STATES COULD INSTEAD EASILY DOWNGRADE STANDARDS, THEREBY DEFINING AWAY POLLUTION PROBLEMS.

EPA CLAIMS THAT THESE CHANGES ARE NEEDED BECAUSE SOME STATES ADOPTED WATER QUALITY STANDARDS THAT WERE UNREASONABLY STRICT AND COSTLY, AND WANTS TO ALLOW STATES TO WEAKEN THESE STANDARDS TO ALLOW MORE POLLUTION IN THE WATERS. EPA HAS YET TO DEMONSTRATE ACTUAL INSTANCES WHERE THE EXISTING REGULATIONS HAVE BEEN INFLEXIBLE AND HAVE PREVENTED A STATE FROM DOWNGRADING A STANDARD THAT COULD NOT BE MET. IN FACT, UNDER THE EXISTING REGULATIONS, MINNESOTA HAS RECENTLY DOWNGRADED 208 STREAM SEGMENTS, COVERING APPROXIMATELY 800 MILES, BECAUSE THE STATE BELIEVED THAT THEY COULD NEVER BECOME FISHABLE OR SWIMMABLE. IF EPA PERMITS THIS AMOUNT OF DOWNGRADING OF STANDARDS NOW, WE CAN EXPECT MUCH MORE DOWNGRADING UNDER THESE PROPOSALS. THIS WOULD REWARD STATES AND INDUSTRIES THAT HAVE DONE

A POOR JOB OF CLEANING THEIR WATERS. EPA'S DOWNGRADING PROPOSAL MAKES ACHIEVING THE FISHABLE, SWIMMABLE GOAL OF THE ACT MORE DIFFICULT.

SIGNIFICANTLY, EPA WOULD ALSO ELIMINATE THE REQUIREMENT THAT STATES MUST UPGRADE, OR STRENGTHEN, WATER QUALITY STANDARDS IF A STREAM IS MEETING A HIGHER USE THAN THE STANDARD REQUIRES. MINNESOTA IS EVALUATING WHETHER TO UPGRADE THE WATER QUALITY STANDARD OF THE ONCE POISONED ST. LOUIS RIVER. ELIMINATING THE MANDATORY UPGRADING PROVISION COULD PUT AN END TO THIS EFFORT TO ENSURE THAT CURRENT IMPROVEMENTS IN WATER QUALITY BECOMES PERMANENT.

LIMITING THE ANTI-DEGRADATION POLICY

EPA'S PROPOSALS WOULD CURTAIL PROTECTIONS FOR HIGH QUALITY WATERS--INCLUDING THOSE IN NATIONAL AND STATE PARKS AND WILDLIFE REFUGES--THAT ARE CLEANER THAN THE STRICTEST WATER QUALITY STANDARD REQUIRES. THESE WATERS COULD BE POLLUTED SO LONG AS THE EXISTING USE WAS STILL MET. THIS CHANGE IN "ANTI-DEGRADATION" RULES WOULD ENCOURAGE STATES TO STRIVE FOR ONLY THE MINIMUM LEVEL OF POLLUTION CLEAN UP NEEDED TO MEET WATER QUALITY STANDARDS.

CURRENTLY, MINNESOTA IS DEVELOPING PROTECTIONS FOR OUTSTANDING STATE RESOURCE WATERS, AS REQUIRED BY THE EXISTING REGULATIONS. THIS TYPE OF PROGRAM ENSURES THAT THESE OUTSTANDING WATERS REMAIN CLEAN, AND OTHER IMPROVEMENTS IN WATER QUALITY ARE NOT LOST. YET, MINNESOTA'S PROGRAM (AND OTHERS LIKE IT AROUND THE COUNTRY) COULD BE JEOPARDIZED IF EPA'S REGULATIONS NO LONGER REQUIRE IT. A STRONG FEDERAL ANTI-DEGRADATION POLICY IS A CORNERSTONE OF THE ACT'S OBJECTIVE TO RESTORE, PROTECT, AND MAINTAIN OUR NATION'S WATER QUALITY.

Variances for Industry

EPA proposes to allow states to issue variances or exemptions from any additional controls on toxics needed to meet state water quality standards and achieve clean water. No provision of the Act allows states to have the authority to exempt dischargers from treatment requirements needed to clean up toxics. Conceivably, Minnesota could be pressured by heavily polluting firms to grant variances so that they wouldn't have to do any additional clean up of toxics. Toxics in the Mississippi River near the Twin Cities would remain a threat to the health and safety of people and aquatic life.

Public Participation Would be Curtailed

This Committee wisely designed the Clean Water Act to allow the public to participate in nearly every part of the program. EPA's proposed regulations are designed to greatly reduce such participation in the water quality standards process. There would be no required public input when states: develop site-specific criteria; set risk levels for toxic criteria; conduct benefit-cost assessments of meeting stream standards; allow degradation of high quality streams; and, issue variances for dischargers from additional controls. States can alter their water programs in all of these areas without public input. In my experience, public participation has lead to innovative, cost-effective and environmentally enhanced pollution programs.

Taken together, EPA's proposals would fundamentally weaken state clean water programs. The proposed changes in downgrading

AND ANTI-DEGRADATION REGULATIONS, COMBINED WITH THE NEW VARIANCE PROVISION, WILL GIVE RECALCITRANT INDUSTRIAL POLLUTERS INCENTIVES TO GO "POLLUTION SHOPPING" - CLOSING PLANTS IN STATES WITH TOUGH STANDARDS OR LOCATING PLANTS IN STATES WITH WEAK ONES. ECONOMICALLY HARD-PRESSED STATES THAT HAVE STRIVED TO CLEAN UP THEIR WATER--LIKE MINNESOTA--COULD NOW BE FORCED TO CHOOSE BETWEEN WEAKENING THEIR POLLUTION CONTROLS OR LOSING INDUSTRIAL JOBS.

THE PHILOSOPHY UNDERLYING EPA'S PROPOSALS IS THAT WATER POLLUTION CONTROL EFFORTS SHOULD ONLY STRIVE TO MEET WATER USES, AND NOT ACHIEVE WATER QUALITY. FOR INSTANCE, EPA ADVOCATES LIMITING THE ANTI-DEGRADATION POLICY FOR HIGH QUALITY WATERS TO "THE PROTECTION AND MAINTENANCE OF EXISTING USES". AND EPA ASSERTS THAT "THERE IS NO ACCEPTED HIERARCHY OF USES" - A POOR QUALITY USE LIKE IRRIGATION IS AS DESIRABLE AS A HIGH QUALITY USE LIKE FISHING. THIS PHILOSOPHY IS GROSSLY INCONSISTENT WITH THE CLEAN WATER ACT'S OBJECTIVE TO "RESTORE AND MAINTAIN" THE NATION'S WATERS, AND IS AT ODDS WITH THE ACT'S INTERIM GOAL OF ACHIEVING WATER QUALITY SUITABLE FOR FISHING AND SWIMMING. THE CLEAN WATER ACT IS A WATER QUALITY LAW. THE MISSISSIPPI RIVER BY THE TWIN CITIES IS NOW MEETING ITS USE - YOU CAN CATCH FISH THERE. BUT THE RIVER STILL ISN'T CLEAN - YOU CAN'T EAT THEM.

THE EXISTING REGULATIONS ARE DESIGNED TO ENHANCE WATER QUALITY BY GREATLY RESTRICTING DOWNGRADING OF STANDARDS, AND BY PROTECTING HIGH QUALITY WATERS FROM DEGRADATION. IF ADOPTED, EPA'S PROPOSALS WOULD SIGNIFICANTLY LOWER THE SITES OF THE NATION'S CLEAN WATER PROGRAM. IF THAT HAPPENED, THE CLEAN WATER ACT MIGHT BE MORE APTLY CALLED THE "CLEAN ENOUGH WATER ACT."

MINNESOTA, ALONG WITH CALIFORNIA, NEW JERSEY, MARYLAND, AND A DOZEN OTHER STATES, HAVE FOUND FAULT WITH EPA'S WATER QUALITY PROPOSALS, EVEN THOUGH THEY ARE THE SUPPOSED BENEFICIARIES OF THE CHANGES. CALIFORNIA COMMENTED THAT EPA'S PROPOSALS WITHDRAW "SUPPORT FROM STRONG STATE PROGRAMS AND (MAKES) IT MORE DIFFICULT FOR STATES TO MAINTAIN HIGH WATER QUALITY ON THEIR OWN", MINNESOTA TOLD EPA THAT THE PROPOSED REGULATIONS WOULD "REQUIRE THE INEFFICIENT AND EXCESSIVE USE OF LIMITED STATE MONETARY AND HUMAN RESOURCES", BECAUSE UNDER THE PROPOSED RULES, STATES WOULD BE EXPECTED TO UNDERTAKE EXPENSIVE STUDIES LIKE COST-BENEFIT ASSESSMENTS. I WOULD LIKE TO SUBMIT MINNESOTA'S COMMENTS TO THE RECORD. THESE NEW RESPONSIBILITIES COME AT THE SAME TIME THAT THE REAGAN ADMINISTRATION PLANS TO SLASH WATER GRANTS TO THE STATES BY 54 PERCENT, FROM $54 MILLION IN 1983 TO $24 MILLION IN 1984.

RATHER THAN SPENDING OUR SCARCE TAX DOLLARS CONDUCTING EXPENSIVE STUDIES DESIGNED TO RATIONALIZE WEAKENING STANDARDS AND CONTROLS, WE WOULD RATHER HAVE THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) USE ITS LIMITED RESOURCES TO DEVELOP A PROGRAM THAT ADEQUATELY IDENTIFIES, MONITORS, AND CONTROLS, THE DISCHARGE OF POISONOUS INDUSTRIAL CHEMICALS INTO OUR PRICELESS RIVERS AND LAKES. A SURVEY CONDUCTED BY THE MPCA DETERMINED THAT HOUSEHOLDS IN THE TWIN CITIES AREA ARE WILLING TO PAY AN ADDITIONAL $44 TO $67 ANNUALLY TO ACHIEVE FISHABLE, SWIMMABLE WATERS IN THEIR STRECTCH OF THE MISSISSIPPI RIVER. NATIONWIDE, THE LOUIS HARRIS SURVEY FOUND THAT 70 PERCENT OF THE PEOPLE POLLED WOULD PAY $100 MORE A YEAR

IN TAXES AND PRICES TO CLEAN UP WATER POLLUTION. THE PEOPLE IN THIS COUNTRY ARE WILLING TO PAY FOR CLEAN WATER; ITS UP TO THE CONGRESS TO MAKE SURE THAT THE EPA SPENDS ITS TIME AND OUR MONEY WORKING TO STRENGTHEN OUR CLEAN UP EFFORTS, NOT WEAKEN THEM.

WE SUPPORT YOUR EFFORTS, MR. CHAIRMAN, TO OPPOSE THESE PROPOSALS THAT WILL RESULT IN FEWER RIVERS AND STREAMS MEETING THE FISHABLE, SWIMMABLE GOAL OF THE ACT. WE ALSO SUPPORT YOUR PROPOSED AMENDMENT TO THE ACT THAT WOULD PREVENT THE DOWNGRADING OF STREAM STANDARDS. ADDITIONALLY, WE URGE YOU TO STRENGTHEN STATE WATER QUALITY PROGRAMS BY REQUIRING THAT:

-- ANTI-DEGRADATION POLICIES PROTECT IN-STREAM WATER QUALITY AS WELL AS WATER USES;

-- STATES UPGRADE STREAM STANDARDS WHEN A HIGHER USE IS BEING MET; AND

-- OUTSTANDING STATE AND NATIONAL RESOURCE WATERS BE PROTECTED FROM DEGRADATION.

THE EXISTING WATER QUALITY STANDARDS PROVISIONS HAVE HELPED US ACHIEVE A REMARKABLE CLEAN UP OF OUR RIVERS AND LAKES IN MINNESOTA, AND AROUND THE COUNTRY. WE URGE CONGRESS TO CONTINUE THIS PROGRESS BY STRENGTHENING THE CLEAN WATER ACT, AND BY URGING EPA TO SET ASIDE ITS ILL-CONCEIVED AND HARMFUL WATER QUALITY PROPOSALS.

THANK YOU VERY MUCH FOR THE OPPORTUNITY TO ADDRESS THE SUBCOMMITTEE. I AM HAPPY TO ANSWER ANY OF YOUR QUESTIONS.

STATEMENT OF JOHN B. GIBSON

ON BEHALF OF
EDISON ELECTRIC INSTITUTE

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
OF THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

CONCERNING

WATER QUALITY STANDARDS

APRIL 7, 1983

Mr. Chairman and members of the Subcommittee, my name is John Gibson. I am an attorney for Pacific Gas and Electric Company in San Francisco, California, and I am here today on behalf of the Edison Electric Institute (EEI) and its 189 member companies. I am pleased to have this opportunity to present EEI's views on Senate Bill 431 and to suggest revisions that we believe are essential. And I am pleased to be back before this Subcommittee. Last July, I came before you to testify on the issue of dams. At that time my colleague, Mr. Jerrell Smith, also testified on EEI's behalf about the need to streamline the standards and procedures for obtaining thermal discharge variances under § 316(a). While the dams issue has now been resolved in the Courts, a revised thermal variance provision is still urgently needed. We hope the Subcommittee will consider this crucial issue along with the many others raised at these hearings.

My testimony today concerns the water quality aspects of Senate Bill 431, specifically, section 6 of that Bill. I will not today address the other provisions of that Bill, many of which EEI supports, but some of which it questions (e.g., the need for increased enforcement sanctions and further study of non-point source pollution). EEI will submit a separate statement for the record, later in the legislative process, commenting on the remainder of Senate Bill 431 as well as other bills that may surface during this session of Congress. I would like to turn now to the subject of my testimony, § 6 of Senate Bill 431.

The Water Quality Standards Amendment

Section 6 would prohibit states from ever changing any water uses designated as of January 1, 1983. This prohibition apparently would apply to all such designated uses, whether or not attained. This proposal not only undercuts EPA's recently proposed revisions to its water quality standards regulations but also goes far beyond the restrictions in the current EPA regulations that have been in existence since 1975.1/ We strongly oppose this amendment.

The amendment would force states to adhere blindly to use designations made long in the past, often on the basis of insufficient information and without consideration of the costs to the public of attaining those uses. Many states, when they first promulgated their water quality standards, designated waters "fishable, swimmable" without much regard for whether such uses really made sense for particular waterways. Former EPA Administrator Douglas M. Costle pointed out this problem during hearings held in 1980:

> [Water quality standards] were initially developed with insufficient information regarding the practical implication of achievement; high goals of water use were set, but environmental, technological and economic constraints were seldom considered; and site-specific analysis of waterway conditions that would affect either the attainability of the use or the criteria necessary to support attainable uses was rarely conducted.2/

1/ 40 C.F.R. § 130.17 (1979); 40 C.F.R. § 35.1550 (1982).

2/ Statement before the House of Representatives Subcommittee on Oversight and Review, Committee on Public Works and Transportation; June 26, 1980.

Moreover, recent studies done by the utility industry show that many of the water quality criteria established to support designated uses are also more stringent than needed.3/

States should not be bound by past mistakes if the passage of time, the gathering of additional data, and a careful reconsideration of water quality standards have convinced state officials that those standards need to be revised.

The clearest examples of cases in which changes to designated uses should be allowed are where natural background pollutant levels or physical limitations in the water body make the uses unattainable. But there may also be cases in which use designations should be revised in order to allow for

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3/ A study conducted for the Utility Water Act Group (UWAG) by Professors Arthur Buikema, Jr. and Donald Cherry at Virginia Polytechnic Institute strongly supports this conclusion. Buikema and Cherry, "Evaluation of 1980 U.S. EPA Water Quality Criteria for Selected Trace Metals" (Oct. 1982). Buikema and Cherry examined EPA's 1980 criteria for several metals by comparing them to ambient concentrations reported at United States Geological Survey (USGS) benchmark stations (in streams not generally influenced by man and thus presumed to reflect natural water quality conditions) and to concentrations reported in a number of site-specific biological studies. Buikema and Cherry found that the national criteria were lower than natural background levels in many of these cases, especially in soft water systems (i.e., systems with low levels of calcium and magnesium). They concluded that the criteria for four of the five metals examined (cadmium, copper, lead and zinc, but not nickel) were overly stringent and could be modified with no harm to the environment.

economic growth or expansion. The need to allow for economic growth or expansion is particularly important in the case of the electric utility industry.

Steam electric power plants furnish an essential public service -- indeed, electric utilities are required in most cases under state law to build the facilities necessary to provide adequate and reliable electric service for the public. The sites at which steam electric power plants can be located have traditionally been subject to a complex web of economic and social constraints stemming from such factors as proximity to load centers, to main transmission lines, and to sources of fuel, and access to methods of fuel transport. They are now also subject to important locational constraints under air pollution, water pollution and solid waste disposal laws.

The net effect of § 6 would be to absolutely prohibit use for power plant siting of any stream location at which planned discharges from the plant could be accommodated only through a use redesignation, regardless of the public's need for electricity, regardless of whether the site was judged to be the best that could be found (after all relevant environmental, economic and social factors were considered), and even though the plant would in any case have to use the best available demonstrated control technology to meet stringent new source performance standards. Further, § 6 could

even require environmentally counterproductive results. For example, siting a new energy facility may force a choice between changing a designated use for a stream of minor importance or "degrading" (but not changing the use of) a more important and valuable water body. Similar counterproductive results could occur where § 6 forced siting a plant at a less desirable location for release of its atmospheric emissions or disposal of its solid wastes, just to avoid use redesignation on a small stream.

The difficulties presented by an inflexible rule like that of section 6 are multiplied if that section is intended to prevent redesignation within a basic use designation (e.g., as between a cold water or warm water fishery use within the basic fish and wildlife protection use). For example, maintaining a cold water (e.g., trout) fishery designation at a particular location may require construction of cooling towers. The costs of cooling towers, which can run as high as $75 million for a single 1,000 MW plant,4/ may outweigh the benefits of

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4/ Cooling towers will also have other significant adverse impacts. For example, cooling towers evaporate large quantities of water to dissipate heat to the atmosphere, consuming up to 250 percent more water than open-cycle cooling. Other adverse side effects may include fogging, icing of nearby exposed surfaces in winter, cloud formation, abnormal precipitation, salt drift, noise, aesthetic impact, and potential aviation hazards. All of these effects should be considered in a benefit-cost comparison.

maintaining the cold water fishery use. In such a case, it may make sense to change the use to a warm water (e.g., bass) fishery of equivalent social value. It is not clear whether or not this type of change in the level of aquatic protection would be prohibited by § 6 of the Senate bill, but it clearly should not be.

For all of these reasons, any rigid, arbitrary rule such as that of section 6 is unwise public policy and should not be adopted. A state should be free to designate (or redesignate) any use that is justified by the facts then before it, and by the value judgments as to competing uses that a state is best suited to make.

EPA's Proposed Water Quality Standards Regulations

EPA's recently proposed water quality standards regulations and draft guidance documents provide a more realistic approach to national water quality planning than does § 6 of Senate Bill 431. EPA's proposals represent an ambitious undertaking to provide states with comprehensive procedures for setting, revising, and applying water quality standards. On the whole, we find those proposals to be well-conceived and grounded on sound legal and policy considerations.

We especially support EPA's efforts to give states greater flexibility to revise and fine-tune their water quality

standards in appropriate circumstances. It is important to recognize that EPA's proposals would not give states carte blanche to change their water quality standards, but rather would establish certain limited conditions under which states could do so. Under the proposed rules, states are encouraged to conduct analyses to determine whether designated uses are attainable. If they are not attainable because of physical limitations or natural background levels of pollutants, states are allowed to change those uses. States may also change designated uses if they determine that the benefits of attaining the uses do not bear a reasonable relationship to the costs.

By giving states greater flexibility to establish and revise designated uses, EPA's proposals advance the policy in § 101 of the Act to preserve and protect the primary responsibilities and rights of states in pollution control. This policy is especially important with respect to water quality standards, since designating the use of a particular water body is a complicated matter of social and political judgment calling for the weighing of competing goals and the allocation of limited resources among competing interests, much like land-use planning and zoning. States are in the best position to make these judgments since they are most familiar with local conditions and values.

Congress should not now undercut EPA's proposals by prohibiting changes to use designations. Therefore, we urge that § 6 be deleted from the bill. In the event this amendment is adopted, however, we believe that Congress should (1) limit it to a prohibition of changes to general use designations (for example, from "fishable" to "industrial") which were attained as of Jan. 1, 1983, (2) make clear that "fine-tuning" within these designations (for example, a change from a cold water to warm water fishery) is not prohibited, and (3) in any case allow states to change uses where the siting of essential new energy facilities is involved and the public interest requires redesignation.

TESTIMONY

BEFORE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

BY

Dr. E. Alan Cassell
Professor of Water Resources
Director, Vermont Water Resources Research Center
School of Natural Resources
University of Vermont

Thursday, April 7, 1983

19-871 O—83——29

My name is Alan Cassell, I am Professor of Water Resources and a member of the faculty of the School of Natural Resources at the University of Vermont (UVM), our State's Land Grant University. I am also Director of the Vermont Water Resources Research Center - a cooperative state/federal funded activity at UVM with a mission to encourage and carry-out research on water resource problems that have high priority to the State of Vermont. I am delighted to have this opportunity to share my experiences in soil and water conservation and non point source pollution with the Committee.

I am but one - of many - participants in Vermont's assault on one of her major water quality problems, that of non-point source pollution. Presently, my involvement is through participation in the St. Albans Bay Rural Clean Water Program Watershed Project. This project is designed to reduce soil erosion and animal waste runoff for the protection of St. Albans Bay and Lake Champlain. I believe our experiences with this project offer some valuable lessons in how carefully planned and executed local - state - federal cooperation and coordination can lead to substantial achievement in non-point source pollution control and in soil and water conservation.

My testimony, primarily focused on agricultural non-point sources, is divided into three parts:

1) Firstly, I wish to very briefly address the national non-point pollution problem.
2) Secondly, I will discuss, in some detail, the nature of our successful local-state-federal ventures in Vermont, and
3) Thirdly, I intend to briefly describe the objectives and plan of work of the St. Albans Bay RCWP Watershed Project itself. I will emphasize that portion of the Project in which my involvement is the greatest - i.e., the Comprehensive Monitoring and Evaluation activity.

SOME NATIONAL ISSUES

In 1972, Congress, through its passage of PL92-500, charged EPA with the responsibility of achieving the national goals of restoring the lakes, rivers and streams of this nation to fishable and swimmable conditions. EPA focused the great bulk of its resources on controlling point source discharges through an aggressive regulatory program. As a result many instances of improved water quality can be cited throughout our nation.

However, pollution -- i.e., non-point source pollution -- that enters our surface waters in land runoff from agriculture, silviculture, mining, highways, construction, urban areas, etc. received relatively little attention. Sections 314 and 208 of PL92-500 permitted EPA to look into non-point source pollution problems but massive nation-wide accomplishments were not achieved. Presently, the experimental Rural Clean Water Program (RCWP) and several USDA programs are the only federal activities that indirectly or directly address this nation's non-point source pollution problem.

It is widely agreed that whenever we use the land for our own purposes -- that is changing the land from its natural undisturbed state -- the amount of pollutants in the runoff almost always increases. Figure 1 - taken from a report by Omernik (1976) clearly shows increases in total phosphorus and total nitrogen levels in streamflow as land use is changed from forests to agricultural/urban use. This finding is confirmed in another recent study by Humenik (1982a). Similar conclusions may be drawn when considering the amount of sediment in land runoff (Humenik-1982b). Clearly, the manner in which we use our land can have a substantial impact on water quality.

It is also well documented that non-point source pollution is a national problem. In Vermont the pollution of Lake Champlain and many other smaller lakes and ponds is caused primarily by non-point source pollution, not by point source discharges. A similar finding appears to be the case for some 30 Delaware lakes (Ritter et al.-1981). Agricultural non-point source pollution has been identified in the Missouri River Basin (McElroy et al.-1975) and in the Piedmont and Central Plains of North Carolina (Horney et al.-1979). Additionally the Final Program Report for RCA (PL95-182) points out that:

> "As food and fiber production is increased to meet domestic and export demands, the likelihood of water pollution from sediment, fertilizers, pesticides, irrigation return flow and animal waste will also increase" (USDA-1982).

The darkened areas in Figure 2 shows those areas of the nation where potential for water quality degradation is high due to agricultual non-point source pollution. Thus, it is difficult to deny the national importance of the pollution of our nation's waters by non-point sources, yet at the same time, it needs to be recognized that the local nature of these non-point sources of pollution has as much variety as does the way in which we use our land. Different regions of our country have very different problems.

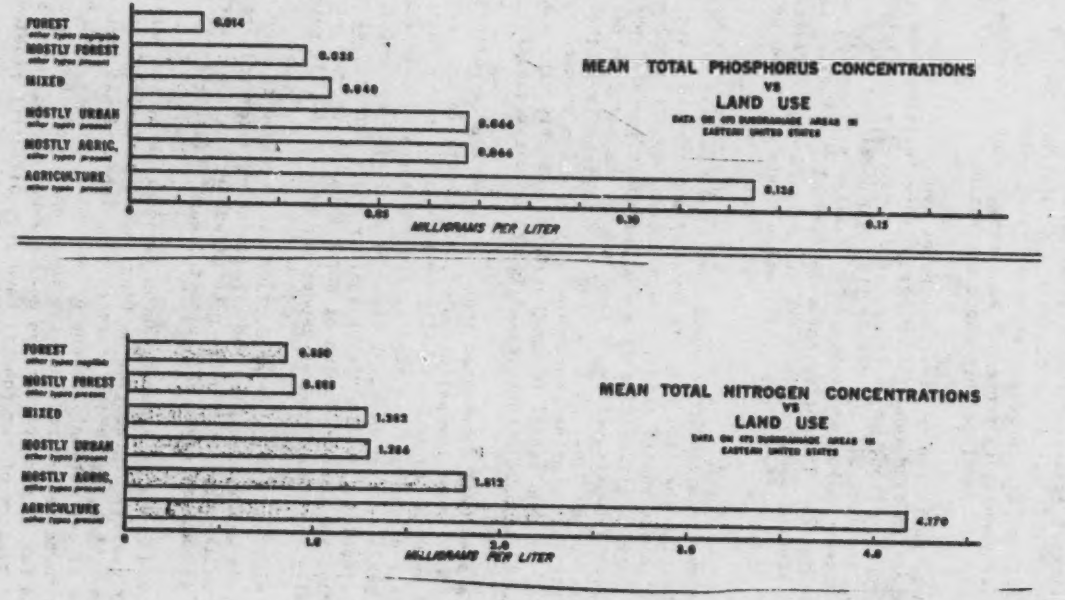
Let us examine, in greater detail, agriculture and its role in the non-point soure pollution problem. Study after study has indicated that agricultural land use can and, in many cases, does degrade the quality of our

FIGURE 1

RELATIONSHIPS BETWEEN GENERAL LAND USE

AND

STREAMFLOW PHOSPHORUS & NITROGEN LEVELS



- FROM OMERNIK (1976)

FIGURE 2

AREAS WHERE HIGH POTENTIAL EXISTS FOR WATER QUALITY DEGRADATION

BECAUSE OF

AGRICULTURAL NON-POINT SOURCE POLLUTION

- FROM USDA (1982)

surface waters. In the future, as individual farm size continues to grow and as the total acreage in active agriculture decreases there will be an even increased potential for agricultural activities to impair water quality. Appropriate protective and conservation actions will be needed, but until the relationships between agricultural land use and water quality are understood we will continue to have difficulty making progress as rapidly as needed.

For some 150 years farmers have been installing Soil and Water Conservation Practices (SWCP's) on their lands. These SWCP's were installed primarily to reduce soil erosion (i.e., to protect the soil resource) and to control the water on the fields. Although these SWCP's are effective erosion control measures, their efficiency at reducing many of the important non-point source pollutants (i.e., nitrogen, phosphorus, pesticides, and organic matter) is not well documented. Presently, through the national experimental Rural Clean Water Program, farmers in a number of areas throughout this country are installing practices designed to reduce or prevent agricultural non-point source pollutants from entering surface waters. These practices are called "Best Management Practices" (BMP's).

When farmers actually install BMP's a potential to improve water quality has been created; however, given our present state of knowledge, the question remains as to just how effective are these BMP's for improving water quality. The national experimental RCWP is, in part, designed to answer this question through its Comprehensive Monitoring and Evaluation activities.

The St. Albans Bay RCWP Watershed Project, discussed at greater length later in this testimony, is a case study to demonstrate how the implementation of animal waste management BMP's can improve water quality. The project conceptually can be divided into two parts

1) a local program to encourage and induce farmers to install BMP's on their farms
2) a program to monitor how the water quality improves as BMP's are implemented.

THE ST. ALBANS BAY RCWP PROJECT

A SUCCESSFUL LOCAL - STATE - FEDERAL COOPERATIVE VENTURE

Truly viable cooperative activities among local, state and federal agencies and institutions do not develop spontaneously and never rapidly. Unless viewed by all participants to be mutually beneficial, effective cooperative ventures will never be formed. The old agency motivations to "protect turf", "build an empire", etc. first must be overcome. Typically, it takes years before the appropriate cooperative framework can be formulated. Even then it takes a lot of hard work, time, imagination, give and take - more than many of us are willing to exert - to maintain and nurture a successful continuing cooperative spirit.

Development of Cooperation

The problems of low water quality in St. Albans Bay have existed for at least two decades. In August of 1963 a group of Bay area residents formed the St. Albans Bay Association to combat the increasing algal and weed growths that impaired their use of the Bay. Since its founding the Association has sponsored frequent chemical treatments of the Bay waters to reduce algal growth and has brought political pressures to upgrade St. Albans City's inadequate wastewater treatment plant.

Although the St. Albans Bay Rural Clean Water Program Watershed Project was approved in the Spring of 1981 things really got underway some 5 to 6 years earlier.

In the mid 1970's, the Water Resources Council through its New England River Basin Commission commenced the Lake Champlain Level B Study. As part of this Level B Study, several sub-studies were funded. One was a literature review which documented the possible impacts certain farm practices may have on surface water quality. Two others concluded that non-point sources of pollution - especially land runoff from agriculture - were significant sources of pollution to Lake Champlain.

At about the same time, the Vermont Agency of Environmental Conservation, as authorized by PL92-500, initiated its 208 Planning Process for the State of Vermont. A major element in this planning process culminated in the formulation of a "State Water Quality Plan for Controlling Agricultural Pollution" (VAEC 1978). This plan identified areas in the State that should receive cost-sharing for conservation practices on a priority basis. The St. Albans Bay watershed was identified as the number 1 priority.

Also at about the same time, the University of Vermont through the Vermont Water Resources Research Center carried out a problem analysis to determine those researchable water resource problems which were of greatest importance to the State of Vermont. Among those identified were reseaech focusing on the protection of lakes and ponds and on the relationship between land use and surface water quality.

In 1978 a special "Governor's Task Force" was formed to study the St. Albans Bay problem. The Task Force Study Report recommended (1) the upgrading

of the St. Albans City's inadequate wastewater treatment plant and (2) the implementation of a comprehensive Bay management plan to reduce the input of non-point source pollutants in Bay water quality.

In short, what happened before 1981?

a. The problem of agricultural non-point source pollution was clearly identified and defined. Soil erosion and manure was polluting the waters of the State of Vermont and St. Albans Bay also. Soil and water conservation practices were thought to be needed. Additionally, these issues were judged to be an important problem in Vermont and one which had many ramifications - not merely agricultural - but economic and environmental as well. To illustrate, "Farmland, through the absorption of precipitation, helps recharge groundwater supplies, helps protect environmentally sensitive areas such as flood plains and wetlands, and is a place where sludges and septage can be disposed of. However, the environmental benefits can be outweighted if the farmer or landuser does not follow best management practices..." (VAEC-1978).

b. Throughout this period, USDA-ASCS and USDA-SCS were providing cost-sharing and technical assistance to farmers. These USDA agencies, the University of Vermont, the Vt. Agency of Environmental Conservation and citizen groups actively participated in these studies and each brought their unique skills and knowledge to the problem. While working together on these studies and planning activities we were all learning - unfortunately for some of us for the first time - about each other's programs, goals, aspirations and capabilities. A feeling of mutual respect and trust developed and soon the question was "how can we help solve this critical local and state problem?" We understood each other's strengths and constraints and began to nourish each other. Things began to happen that none of us individually could accomplish.

What I have just described is the planning (or problem definition) process operating at a high level - a process which for us took 5 to 6 years. A specific problem was defined. Additionally, it was learned that collectively, we could do a better job of soil and water conservation and non-point source pollution control than working separately. We had done our homework and were now ready to solve the problem.

Ongoing Cooperation

Under the leadership of USDA-ASCS, USDA-SCS, the Franklin County Natural Resources Conservation District, and the Local Coordinating Committee, and with the support of EPA, the St. Albans Bay RCWP Plan of Work was developed and finally approved in the Spring of 1981. In keeping with the cooperative relationships developed over the past 5 to 6 years, critical input was provided by the Vermont Agency of Environmental Conservation, Vermont Department of Agriculture, USDA-ERS, USEPA and the University of Vermont

through its Water Resources Research Center and its Cooperative Extension Service.

The St. Albans Rural Clean Water Program Watershed Project has two identifiable parts:

1) Implementation of Best Management Practices (BMP's)

2) Comprehensive Monitoring and Evaluation (CM&E) (including water quality, land use and socio-economic impacts).

To achieve effective implementation of BMP's in the St. Albans Bay Watershed many actors have parts to play. The University of Vermont Extension Service and USDA-SCS work with individual farmers to provide information and technical services so that each unique farm situation is addressed to meet both RCWP goals and farmer needs. The USDA-ASCS and each individual farmer develops an agreement to cost share the implementation of the agreed upon BMP's (typically 75% Federal, 25% farmer). Additionally, USDA-ASCS, USDA-SCS, the Franklin County Natural Resource Conservation District and the University of Vermont work together to prioritize the farms so that the most critical situations are funded first.

In the conduct of the Comprehenesive Monitoring and Evaluation portion of the Watershed Project, a continuing day-to-day local-state-federal-university cooperation exists. This Comprehensive Monitoring and Evaluation activity resulted from a Cooperative Agreement between five parties:

The USDA-Agricultural Stabilization and Conservation Service (USDA-ASCS)
The USDA-Soil Conservation Service (USDA-SCS)
The Vermont Agency of Environmental Conservation
The University of Vermont - Water Resources Research Center
Franklin County Natural Resources Conservation District

The costs of the CM&E activity involved were cost-shared approximately 80% USDA-ASCS and 20% University of Vermont.

Each party to the agreement accepted a number of specific responsibilities to assure the success of the Comprehensive Monitoring and Evaluation activity. These responsibilities are:

1. USDA-ASCS
   - to provide the federal funding required for this program
   - to provide for continuous coordination between the monitoring and evaluation program and the State and local coordinating committees
   - to provide for continuous surveillance of appropriate agricultural activities in the watershed
   - to provide technical and administrative consultation and assistance as appropriate
   - to participate in project management through membership on the Project Advisory Council

2. USDA-SCS

- to provide certain hydrologic baseline information as needed
- to conduct certain field surveys as needed
- to provide for continuous surveillance of agricultural activities in the monitored watersheds and to communicate these data to the principal investigator
- to provide technical consultation and assistance as appropriate
- to provide the Franklin County Natural Resource Conservation District with land right work maps showing minimum land rights to install and operate the sampling stations
- to provide for continuous coordination with the national USDA/EPA water quality monitoring and evaluation team
- to provide an evaluation of program progress to ASCS in conformance with the agreement schedule for progress reports and payment periods
- to participate in project management through membership on the Project Advisory Council

3. Vermont Agency of Environmental Conservation

- to provide laboratory services to maintain a high level of quality assurance
- to provide assistance in sample collection and laboratory analysis under conditions necessary to perserve continuity of the monitoring program
- to simultaneously conduct water quality monitoring activities at the St. Albans treatment facility and in St. Albans Bay
- to provide the principal investigator with all state-generated water quality data which related to the St. Albans Bay Watershed and the Bay itself
- to participate in project planning and management through membership on the Project Advisory Council

4. Franklin County Natural Resources Conservation District

- to acquire such land rights as will be needed in connection with the water quality monitoring and analysis program
- to acquire or provide assurance that landowners or water users have acquired such rights pursuant to state laws as may be needed in installation and operation of monitoring stations
- to participate in project management and planning through membership on the Project Advisory Council

5. University of Vermont - Vermont Water Resources Research Center

- to provide a principal investigator
- to provide non-federal cost-sharing as negotiated annually
- to exercise complete responsibility in carrying out all aspects of the Program of Work including:
  - design, construction, operation of sampling stations
  - sample collection
  - sample analysis
  - data analysis

data management
data interpretation

- to provide for educational/research opportunities for graduate and undergraduate students at the University of Vermont
- to provide comprehensive annual technical reports to USDA-SCS, USDA-ASCS, and VAEC
- to make all data immediately available to other parties to the agreement as needed
- to provide administrative and budget control and required fiscal reporting to USDA-ASCS and USDA-SCS
- to formulate annual plans of study (including budget) in close consultation with USDA-ASCS, USDA-SCS, FCRCD and VAEC through the Project Advisory Council
- to actively present results of this work to appropriate technical meetings, symposiums, etc.

The original cooperative agreement established a Project Advisory Council (PAC) with the overall role of insuring the continuing cooperation between parties. Specifically the functions of PAC are:

- promoting continuing free exchange of data and information from party to party
- advise principal investigator on overall program direction and to suggest operational formats
- review all draft reports and concur on content prior to publication
- actively participate in annual program formulation
- insure coordination between the USDA-ERS socio-economic study and the water quality monitoring and coordination program

The Project Advisory Council membership includes representatives from:

USDA - ASCS: State Office
County Office
USDA - SCS: State Office
County Office
NTC - Broomall, Pa.
USDA - ERS
Vermont Agency of Environmental Conservation
State RCWP Coordinating Committee
Local RCWP Coordinating Committee
Franklin County Natural Resources Conservation District
The University of Vermont: Water Resources Research Center
State Water Extension Specialist
County Extension Agent

PAC formally meets quarterly but many members on PAC communicate or meet almost daily. This concept of managing the project and planning for project direction through a Project Advisory Council has proven to be invaluable. Since project direction is mutually agreed upon, the communication between the cooperating parties has become continuous and unrestrained and even closer ties have been developed. We plan to continue the nurturing of the Project Advisory Council.

THE ST. ALBANS BAY RCWP PROJECT
DESCRIPTION OF PLAN OF WORK

St. Albans Bay - The Problem

St. Albans Bay on Lake Champlain is considered by the State of Vermont to be an important and valuable natural resource. The Bay receives treated domestic wastes and nutrients (nitrogen and phosphorus) from both point and non-point sources. As a result, the Bay has become increasing eutrophic over the past two decades as evidenced by annual algal blooms and proliferation of rooted aquatic plants in the shallow near-shore areas. In recent years the bay has been treated a number of times with $CuSO_4$ to control algal blooms. During the summer of 1982 the aquatic weeds in the near-shore areas were mechanically harvested.

The Bay is used as a source of drinking water by some local residents. Currently the Bay also serves as a limited recreational area (boating, fishing, and swimming) although its full potential as a recreational resource is impaired by the eutrophic Bay conditions. For example, the day use visits to the St. Albans State Park on the Bay declined from 25,900 in 1970 to 3400 in 1978.

St. Albans Bay Rural Clean Water Program Watershed Project

The St. Albans Bay Rural Clean Water Program (RCWP) Watershed Project was prepared by the USDA-ASCS and USDA-SCS in cooperation with the Franklin County Natural Resource Conservation District, the Vermont Agency of Environmental Conservation, the Vermont Department of Agriculture and the University of Vermont. The RCWP Project, approved in the Spring of 1981, is being implemented under the auspices of the National Experimental Rural Clean Water Program. The St. Albans RCWP Project has as its overall objective the improvement of the St. Albans Bay waters through the implementation of Best Management Practices (BMP's). This project will be carried out over the 10 year period, 1981 through 1990. The St. Albans Bay RCWP Watershed Project has two parts.

Part One of the Project includes the preparation of water quality plans and the consummation of contracts with farm owners within the St. Albans Bay Watershed. BMP's for animal waste management and soil erosion control are designed and installed on a cost-share basis. BMP implementation goals are to provide for the management and controlled application of 24,000 tons of manure per year, thus reducing the amount of nutrients (i.e., nitrogen and phosphorus) entering surface waters. It is also estimated that through the implementation of BMP's the amount of sediment reaching the Bay will be decreased by 38%. In order to accomplish this, USDA-ASCS and USDA-SCS provide the necessary financial, administrative and technical assistance to landowners as authorized by the National Experimental Rural Clean Water Program.

Part Two of the Project is the Comprehensive Monitoring and Evaluation activity (CM&E). The overall objective of the St. Albans CM&E is to document the improvement in Bay water quality as a result of BMP implementation. Of

the 26 RCWP watershed projects funded across the country, only five have received the additional monies necessary to carry out a CM&E activity. The St. Albans Bay CM&E activity was the first CM&E to be funded and is being carried out by the University of Vermont-Water Resources Research Center, the USDA-ASCS and the USDA-SCS. The CM&E activity is under the management direction of the Project Advisory Council - a body composed of all cooperating agencies.

The comprehensive water quality monitoring and evaluation program for the St. Albans Bay RCWP Watershed Project has several specific objectives:

1. To document changes in the water quality of specific tributaries within the watershed resulting from implementation of manure management practices.
2. To measure the changes in the amount of suspended sediment and nutrients entering St. Albans Bay resulting from implementation of water quality management programs within the watershed.
3. To evaluate trends in the water quality of St. Albans Bay and the surface waters within the St. Albans Bay watershed during the period of the St. Albans Bay RCWP Watershed Project.

To accomplish these objectives a complex monitoring strategy is underway that includes long-term water quality monitoring, related long-term monitoring, and short-term intensive studies as outlined below:

A. Long Term Water Quality Monitoring
   1. Level 1 Monitoring - St. Albans Bay Trend Stations
   2. Level 2 Monitoring - Subwatershed and Wastewater Treatment Plant Trend Stations
   3. Level 3 Monitoring - Mobile Sampling Stations
   4. Level 4 Monitoring - Random Sampling Program

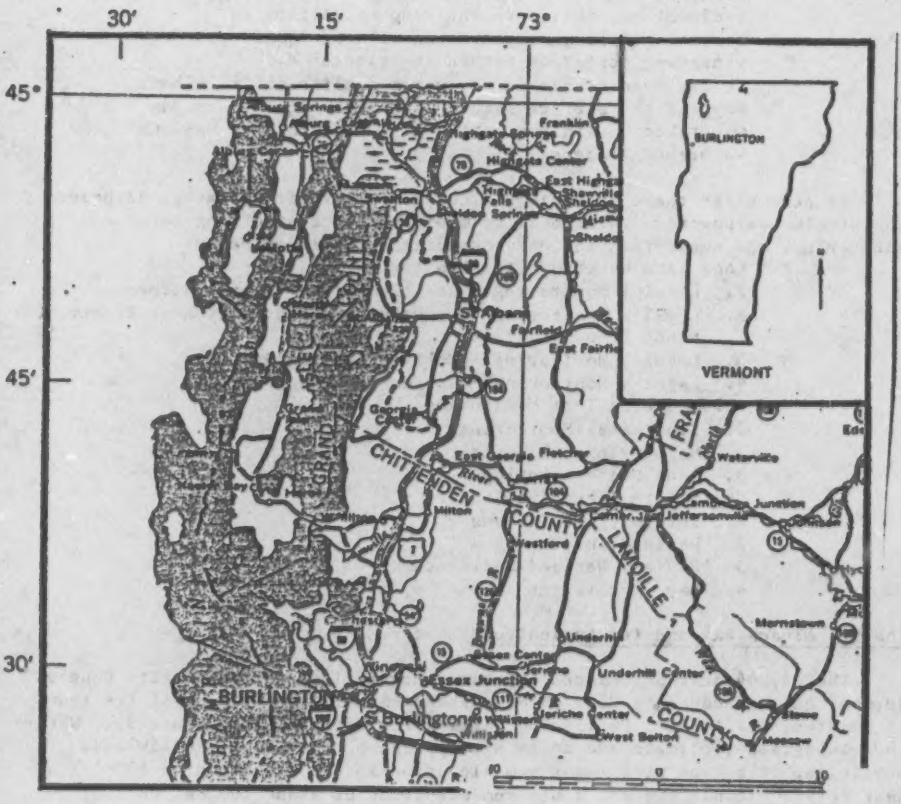
B. Related Long Term Monitoring
   1. Biological Monitoring
   2. Meteorological Monitoring
   3. Land Use Monitoring

C. Short Term Intensive Studies
   1. Intermittent Streams
   2. Wetland Influences
   3. Bay and Wetland Sediments
   4. Bay Circulation

The St. Albans Bay and Its Agriculture

The 33,344 acre St. Albans Bay watershed is located in Franklin County, Vermont and includes the City of St. Albans as well as portions of the towns of Swanton, St. Albans, Fairfield, Fairfax and Georgia (See Figure 3). Watershed topography, climate and soils are typical of the Champlain lowlands physiographic region with a maximum elevation in the watershed of 1300' just east of St. Albans City and a minimum elevation of about 100' at the Bay itself. The average annual precipitation is about 36 inches. The watershed soils consist mainly of lacustrine sands, silts and clays, and some glacial till.

FIGURE 3
LOCATION MAP
FOR
ST. ALBANS BAY RURAL CLEAN WATER PROGRAM WATERSHED PROJECT



St. Albans Bay itself is roughly rectangular in shape with a length of 2.6 miles on a NE-SW axis and a width of 1.4 miles. The Bay has a 2.7 square mile surface area, a maximum depth of 40 feet and a mean depth of 27 feet. The shoreline of the Bay is intensively developed, largely for second home use, but a number of year around residences are on the Bay as well.

Dairy farming has been the principal agricultural activity in the St. Albans Bay Watershed and in Vermont generally for a hundred years or more. State and national trends toward fewer but larger farms are evident in the Watershed. Between 1964 and 1978 acreage in farmland in Franklin County declined by some 25%.

There are 98 dairy farms in the watershed, several vegetable and fruit operations, a horse farm, and two properties managed for timber production. Farms range in size from 94 to 1000 acres and average 330. The average dairy herd totals 95 animal units, including milkers and replacement stock, producing a wasteload approximately equivalent to that of an unsewered human population of 150,000.

Corn for silage is the principal cultivated crop, with yields averaging 18 to 20 wet tons/acre. Various corn-hay rotation schemes are common, but some land is in continuous corn. Just under 10,000 acres are used for corn or corn and hay in rotation. About 3400 acres are in permanent hayland.

Two primary sources of nutrient input to the Bay have been identified - the St. Albans municipal wastewater treatment facility and agricultural runoff. Manure runoff is believed to be the major component of the non-point source contribution to St. Albans Bay.

Implementation of Best Management Practices

Prior to the beginning of the St. Albans Bay RCWP Project the ongoing annual cost sharing program of the USDA-ASCS focused primarily on the implementation of production oriented conservation practices. During the period 1973-1978 about $100,000 of ASCS cost sharing funds were applied to drainage, liming, fertilizing, waste storage, diversion and woodlot management; only 11% of this expenditure was for measures that control soil and nutrient loss. This ongoing program claims about 60 cooperators on the watershed.

As of November 1982 - about 1 1/2 years after the start of the St. Albans Bay RCWP Project - ASCS had spent a total of about $2,100,000 to cost share BMP's with a total of 42 farms being under RCWP contracts. The average contract was cost-shared at 75% at $25,000. All these contracts are on farms that are located in critical areas in the watershed. The cost shared BMP's are largely those necessary for agricultural waste management and sediment and erosion control. There are 70 planned or completed annual waste management systems in the watershed.

Comprehensive Monitoring and Evaluation - Water Quality

As the selected agricultural Best Management Practices are implemented, the water quality of the surface waters in the St. Albans Bay and watershed should begin to show evidence of improvement. Because of the complexities of agricultural land use and the variability of natural climatic events, development of statistically reliable estimates of the impact of BMP's on water quality requires the conduct of a long-term monitoring program. Therefore, this study is to be carried out over the ten year period of 1981-1990. The Program of Work includes four levels of water quality sampling which are being carried out simultaneously.

Each of the four levels of monitoring involves different sampling schedules at different locations on different watersheds. These levels are:

Level 1: Bay Sampling

Level 1 monitoring is designed to determine long-term water quality trends in St. Albans Bay over the life of the project. Three sampling stations are located in St. Albans Bay (see Figure 4).

Station 11: Located at the mouth of the Bay, this station is near the Vermont Agency of Enviromental Conservation's "Lay Monitoring" site. Grab samples are collected periodically at two depths.

Station 12: This station is located approximately 300 feet south of the mouth of Stevens Brook in the northern portion of the Bay. Grab samples are collected periodically at two depths.

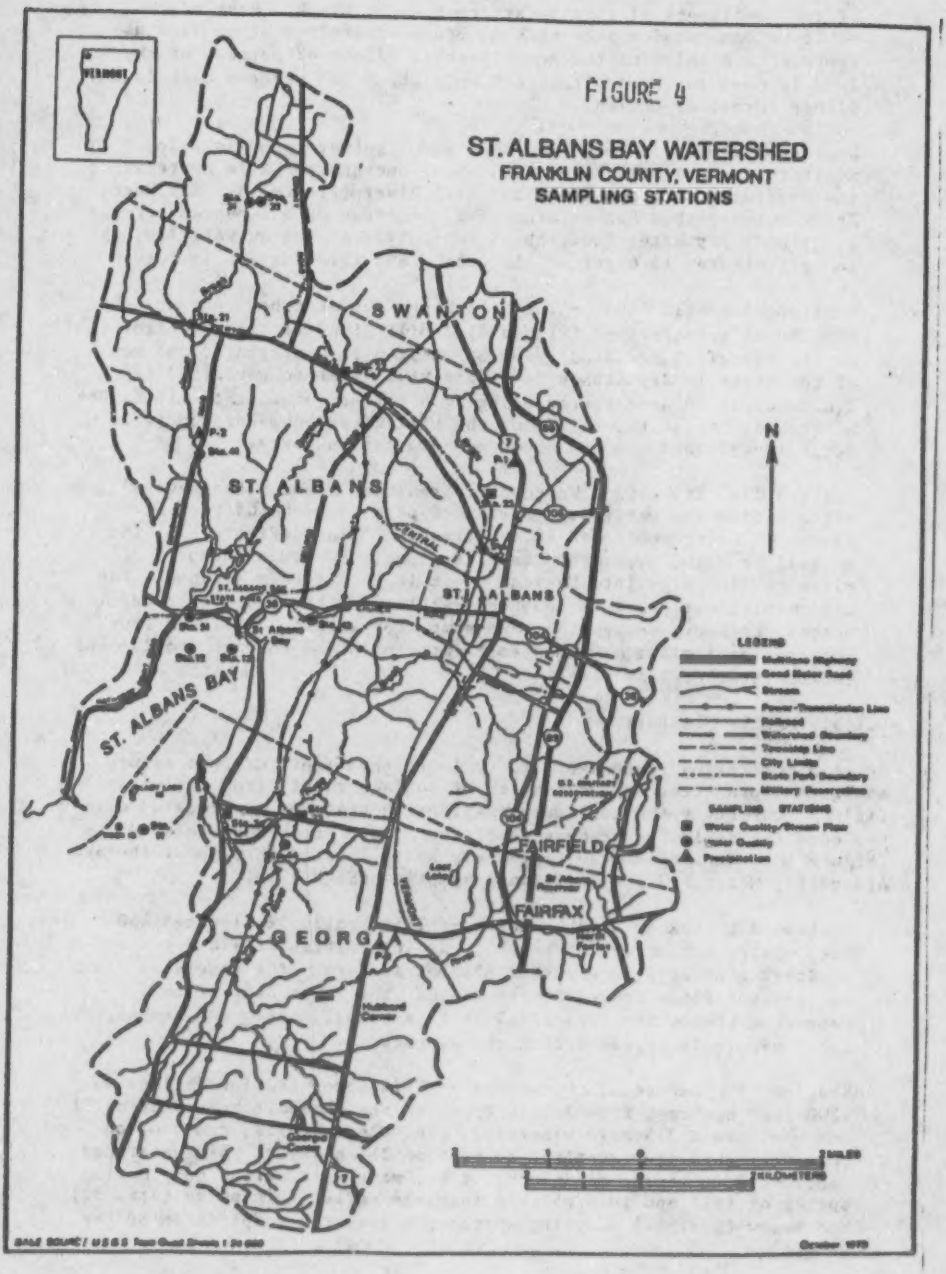
Station 13: This station is about 100 feet off the beach at St. Albans State Park in the north end of the Bay. One grab sample is collected periodically near the surface.

Level 2: Trend Stations

Level 2 monitoring is designed to determine the long-term water quality trends for the four major tributaries entering the Bay and the St. Albans City wastewater treatment plant (Figure 4). Continuous monitoring is being conducted at five stations which collectively monitor 72.3 percent of the St. Albans Bay watershed.

Station 21: Jewett Brook - This subwatershed is being monitored at the intersection of the Brook with Newton Road about three miles upstream from the mouth (Figure 4). This subwatershed has an area of 4,325 acres or 12.7 percent of the St. Albans Bay Watershed. About ninety four percent of the Jewett Brook subwatershed is agricultural (93.7%) with the remainder being forest.

Station 22: Stevens Brook - The Stevens Brook subwatershed is being monitored at the intersection of Newton Road and the Brook about three miles upstream from the mouth (Figure 4). This subwatershed is over twice as large as the Jewett Brook subwatershed and has an area of 11,037 acres representing 33.1 percent of the St. Albans Bay Watershed. The monitoring station is located immediately downstream


VERMONT
FIGURE 4
ST. ALBANS BAY WATERSHED
FRANKLIN COUNTY, VERMONT
SAMPLING STATIONS
SWANTON
ST. ALBANS
ST. ALBANS BAY
FAIRFIELD
FAIRFAX
GEORGIA
N
LEGEND
SAMPLING STATIONS
MILES
KILOMETERS

of the confluence of a tributary to Stevens Brook. Most of the City of St. Albans drains into Stevens Brook, therefore urban land use represents a third of the subwatershed. About 62 percent of the land is used for agriculture and only about two percent each is in either forest or wetland.

Station 23: Rugg Brook - The Rugg Brook subwatershed is being monitored at the Mill River Road about one-quarter mile upstream of the confluence of Rugg Brook and Mill River (Figure 4). The Rugg Brook subwatershed has an area of 2,767 acres or 8.3 percent of the St. Albans Bay Watershed. About two-thirds of the subwatershed is in agriculture, 18.6 percent is urban, and 13.3 percent is forest.

Station 24: Mill River - The Mill River subwatershed contains the Rugg Brook subwatershed (Figure 4). Mill River is being monitored at the Georgia Shore Road about one-half mile upstream of the mouth of the river in St. Albans Bay. The Mill River subwatershed is 8,836 acreas in area representing 26.5 percent of the St. Albans Bay Watershed. About two-thirds of the Mill River subwatershed is in agricultural land use and about one-quarter is forest.

Station 25: St. Albans Wastewater Treatment Plant - The sewage outfall from the wastewater treatment plant for the City of St. Albans is being monitored at the treatment plant (Figure 4). The outfall from the treatment plant is piped underground about 2.5 miles to discharge into Stevens Brook in the Stevens Wetland. The treatment plant provides secondary wastewater treatment of domestic wastes, creamery wastewater, and some stormwater. Effluent from the treatment plant may also enter Stevens Brook through two lagoons located at the plant site.

Level 3: Mobile Monitoring

Level 3 monitoring is designed to evaluate the effect of best manure management practices on the quality of surface runoff from individual fields. Currently two continuous monitoring stations are located on two corn fields in the headwaters of the Jewett Brook subwatershed (Figure 4). In addtion, 30 fields are being located throughout the St. Albans Bay Watershed for additional sampling (Figure 5).

Station 31: LaRose ditch - lower -- This station is located 450 feet upstream from Jewett Brook on an intermittent field ditch and monitors a seven acre watershed planted in corn. The watershed has a one percent slope toward Jewett Brook. The lower half of this watershed (below Sta. 32) receives traditional manure management, i.e., manure is spread during the winter.

Station 32: LaRose ditch - upper -- This upper station is located 1200 feet upstream from Jewett Brook on the same ditch as Station 31 and monitors a 3.5-acre watershed. The slope, soils, and crop on this watershed are identical to Station 31; however, this watershed receives best manure management, i.e., manure is spread only during spring or fall and incorporated into the soil. This above (Sta. 32) and below (Sta. 31) sampling approach allows the comparision of the

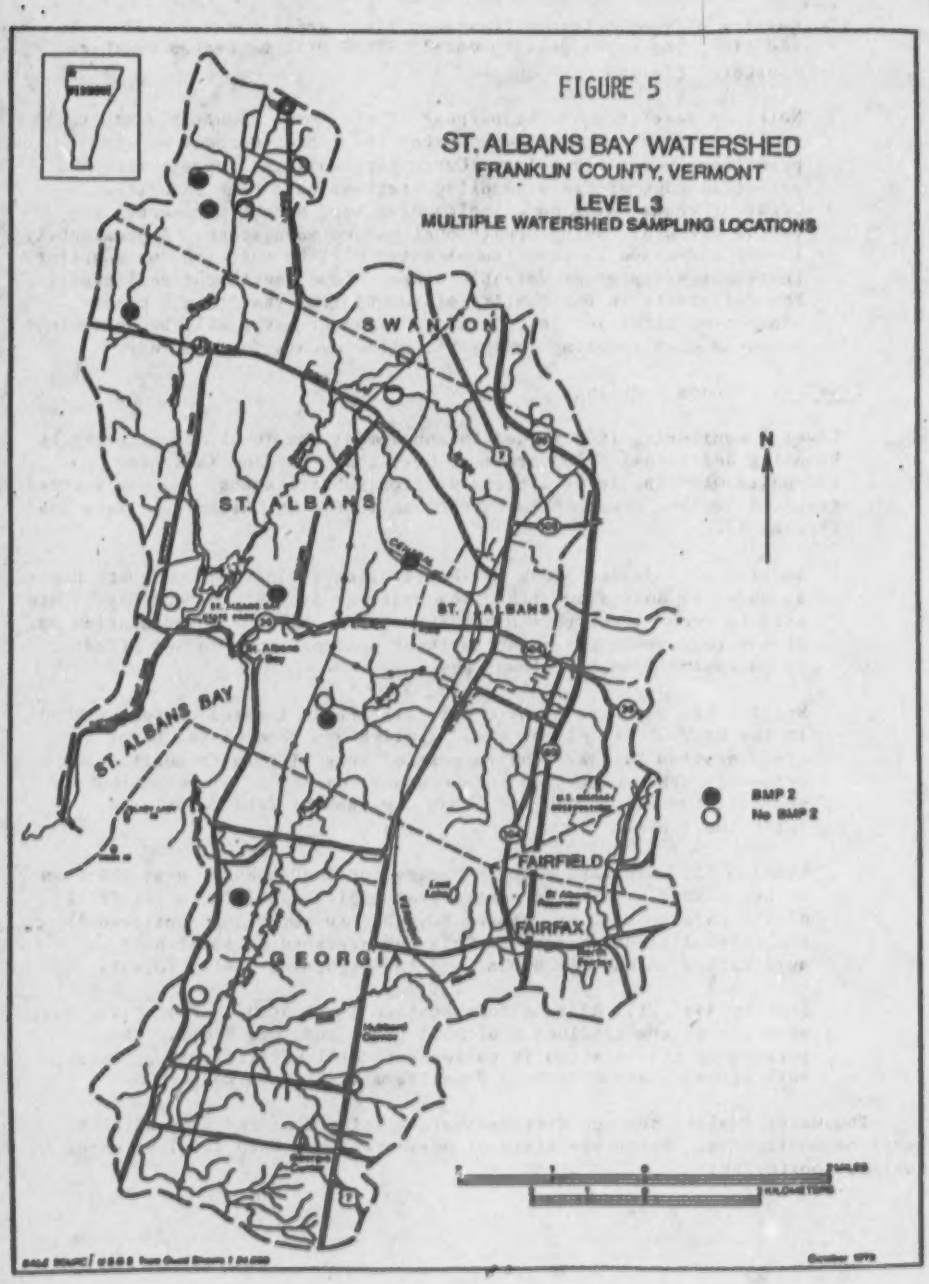


FIGURE 5
ST. ALBANS BAY WATERSHED
FRANKLIN COUNTY, VERMONT
LEVEL 3
MULTIPLE WATERSHED SAMPLING LOCATIONS
SWANTON
ST. ALBANS
ST. ALBANS
ST. ALBANS BAY
FAIRFIELD
FAIRFAX
GEORGIA
N
BMP 2
No BMP 2

quality of runoff from a treatment field and a control field. In addition, the water quality model CREAMS will be tested on these monitored fields.

Multiple Watersheds - The purpose of the Level 3 multiple watershed samling progam is to rapidly assess the impact of best manure practices on water quality. Currently, 20 farms representing 40 potential edge-of-field sampling stations have been identified. Eight of these farms have implemented best manure management and twelve farms are using traditional manure management. Approximately 15 BMP sites and 15 traditional sites will be selected for sampling. These sites represent variable slope, slope length and soil types. The difference in the quality of runoff from traditional manure management sites and best manure management sites will be determined based on grab sampling during stormflow events for one year.

Level 4: Random Sampling

Level 4 monitoring is designed to supplement the level 2 monitoring by sampling additional tributaries to St. Albans Bay and isolating sub-units with the level 2 trend station subwatersheds. Randomly timed grab samples are taken at four stations in the St. Albans Bay Watershed (Figure 4).

Station 41: Jewett Brook - This station is located on Jewett Brook at Dunsmore Road about 1.5 miles upstream from St. Albans Bay. This site is much closer to the Bay than is the Level 2 trend station No. 21 and represents the point furthest upstream that is not affected by backwater from St. Albans Bay.

Station 42: Stevens Brook - This station is located on Newton Road in the City of St. Albans about 2 miles upstream of the Level 2 trend station No. 22. The purpose of this site is to monitor the primarily urban watershed in the upper reaches of Stevens Brook to separate the effects due to urban development from downstream agricutural use.

Station 43: Guayland Brook - Located on Church Road, near the Town of St. Albans, this site monitors an additional 2,700 acres (8.1%) of the watershed of St. Albans Bay that is not being monitored by the Level 2 trend stations. This subwatershed is about half agriculture, a quarter urban, and the remaining mostly forest.

Station 44: Mill River - This station is located on Mill River just upstream of the confluence of Mill River and Rugg Brook. The purpose of this station is to separate Mill River from Rugg Brook, both of which are monitored downstream at Station 24.

The water quality and quantity parameters being measured vary with the level of monitoring. Below are lists of parameters for each level of water quality monitoring:

Level 1 - Bay Monitoring

- Turbidity
- Total Suspended Solids
- Volatile Suspended Solids
- Total Phosphorus
- Ortho-Phosphorus
- Ammonia-Nitrogen
- Total Kjeldahl Nitrogen
- Nitrite + Nitrate - Nitrogen
- Chlorophyll a
- Fecal Coliform
- Fecal Streptococcus
- Temperature
- Dissolved Oxygen
- pH
- Conductivity
- Secchi Disc

Level 2 - Subwatershed Trend Stations

- Turbidity
- Total Suspended Solids
- Volatile Suspended Solids
- Total Phosphorus
- Ortho-Phosphorus
- Ammonia-Nitrogen
- Total Kjeldahl Nitrogen
- Flow
- Fecal Coliform
- Fecal Streptococcus
- Temperature
- Dissolved Oxygen
- pH
- Conductivity
- Nitrite + Nitrate - Nitrogen

Level 3 - Mobile/Field Monitoring Stations

- Total Suspended Solids
- Volatile Suspended Solids
- Total Phosphorus
- Ortho-Phosphorus
- Ammonia-Nitrogen
- Total Kjeldahl Nitrogen
- Nitrite + Nitrate - Nitrogen
- Flow

Level 4 - Random Grab Sampling

- Turbidity
- Total Suspended Solids
- Volatile Suspended Solids
- Total Phosphorus
- Ortho-Phsophorus
- Ammonia-Nitrogen
- Total Kjeldahl Nitrogen
- Nitrite + Nitrate - Nitrogen
- Fecal Coliform
- Fecal Streptococcus
- Temperature
- Dissolved Oxygen
- pH
- Conductivity
- Flow

Comprehensive Monitoring and Evaluation - Related Activities

BIOLOGICAL MONITORING - Biological monitoring will examine population size and diversity of fish and benthic invertebrates, periphyton growth rates, and production of secondary producers as measured by colonization rates on artificial substrates. This sampling effort will serve as both a base from which long-term comparisons can be maade and will also compare current conditions in Jewett Brook, receiving only agricultural runoff, with Stevens Brook receiving effluent from the St. Albans sewage treatment plant. Five areas are being sampled: Mill River, Rugg Brook, Jewett Brook, and Stevens Brook both above and below the treatment plant effluent discharge.

Fish populations will be sampled in spring and fall at all stations by electrofishing using standard techniques. Standing crop will be estimated by Petersen mark-recapture methods and species diversity will be determined at each station.

Benthic invertebrates will be sampled from different habitat types at each station with a Surber sampler or Ekman dredge, where water current is minimal. Samples will be returned to the laborabory for identification, enumeration and weighing.

Two types of artificial substrates will be used to measure periphyton and macroinvertebrate colonization and production rates. Plastic microscope slides which have been roughened on both sides, held vertically in slide holders will be used to measure the rate of periphyton production. Slides will be removed at three-day intervals for 30 days following initial placement. Accumulated material will be removed in the laboratory and ash-free dry weight measured. In addtion, modified Hester-Dendy plate samplers will be used at all stations to estimate colonization rates of macroinvertebrates. Three samplers will be retrieved each week for 12 weeks. Organisms will be identified and weighed in the laboratory.

METEOROLOGICAL MONITORING - Precipitation and other climatological data are being collected continuously in the St. Albans Bay Watershed at several locations (Figure 4). Universal 8-day recording rain gages are located at three sites:

P-2: Dunsmore Farm, Dunsmore Road, St. Albans Town
P-3: Franklin Ford Tractor, Route 7, Georgia
P-4: LaRose Farm, Jaynes Road, Swanton

A non-recording gage (P-1) has been maintained by the Radio Station, WLFE, on Route 7 in the St. Albans City for several years prior to the study and thus will provide some historical perspective on precipitation in the watershed. Manually-read bucket gages are being added to two Level 2 stations to provide more complete coverage of the varying rainfall within the watershed.

Each recording station consists of a standard eight-inch weighing bucket type gage having an eight day recording chart. During the winter, antifreeze is loaded into the bucket to permit measurement of the water content of snow.

During the first three years of the project, a wind monitoring station will be maintained at Hathaway Point on St. Albans Bay providing a continuous record of wind speed and direction. This data will be used in the Bay Circulation Pattern Study that is being used to estimate nutrient transport within the Bay.

Comprehensive Monitoring and Evaluation - Land Use

Water quality data from the St. Albans Bay Watershed must correlate with land use information in order to indentify water quality changes attributable to BMP implementation. A cooperative program of land use monitoring has been developed to collect the information in two phases. The first phase is to collect baseline information on each farm in the watershed. These data include:

Livestock - type, number, housing
Manure management - type, capacity, schedule, fields, stocking
Land use - field by field, activity dates
Fertilizers - type, amount, schedule, fields
Milkhouse - type, disposal
Barnyard - size, paving, schedule
Pesticide/Agrichemicals - type, amount, schedule, fields
Drainage - type, fields

Once this baseline data is obtained, daily field logs are left with the operator and periodically collected. The daily field logs record, on a field-by-field basis, the date, amount and type of manure and fertilizer application. Any changes in farm activities are also recorded.

Both the baseline data and daily field log information will be mapped together with existing information, such as: soils, topography, stream courses, and farm boundaries. The maps will be digitized into the Geographic Information System at the University of Vermont. This system produces computer maps of any scale of digitized information and summary tables. Maps showing combinations of input data can also be produced; for example, a map could be created showing all fields receiving manure within 100 feet of a stream. Changes in land use will be updated as new overlays in the system. Spatial and temporal analysis will be performed to relate land use activities to the quality of streamflow.

The roles of the various cooperators in land use monitoring are:

SCS	- to obtain baseline data on farms with conservation plans
UVM-Extension	- publicize land use monitoring and need for cooperation - obtain baseline data on farms with conservation plans
UVM-Water Center	- assist in baseline data collection - prepare supplemental forms and daily field logs - coordinate land use monitoring - summarize and analyze land use data - analyze data
ASCS	- maintain lists of farm RCWP status

Short Term Monitoring Studies

Four short term intensive studies are underway to supplement the long term quality monitoring activities. These are:

INTERMITTENT STREAMS - Many of the tributaries to St. Albans Bay, including Jewett Brook, as well as most of the smaller streams in the watershed are dry much of the summer and are frozen much of the winter. Both annual and instantaneous patterns of nutrient and sediment transport and the nature of the biota in these intermittent streams will be different from those of continuously flowing streams. A thorough understanding of these differences is need to understand the behavior in intermittent watersheds and the effects of BMP implementation on water quality.

WETLAND INFLUENCES - This study will determine the effects of Stevens Brook Wetland on the quality of water entering St. Albans Bay. Water samples from a number of locations through the wetland will be collected and analyzed. This data will be related to the Level 2 trend stations on Stevens Brook, Jewett Brook, and at the outfall of the City of St. Albans sewage treatment plant, and to a monitoring station at the mouth of the wetland. This study will permit the definition of watershed response to BMP implementation and provide an understanding of observed Bay water quality trend observations.

BAY CIRCULATION PATTERNS - The overall objective of this project is to develop an analysis capability to predict concentration profiles and exchange rates of pollutants in St. Albans Bay under various meteorological conditions. Experimental and theoretical developments will result in an overall strategy of data collection and computer simulation as a means to predict pollution transport. Initially the study will focus on the theoretical developments and the selection and/or construction of equipment to be used for data collection in the following years. The study will culminate in field measurements to verify predicted pollution transport patterns and a method to allow prediction and analysis of Bay water quality trends.

PHOSPHORUS IN BAY SEDIMENTS - Past studies have shown that the sediments in the Bay contain appreciable phosphorus and more recent investigations indicated that significant quantities of phosphorus can be remobilized in the sediment pore (interstitial) waters. Thus there exists the potential for the phosphorus contained within the sediments to be recycled into the overlying waters thus contribution to the eutrophication of St. Albans Bay. Such recycling from the sediments could potentially inhibit recovery of Bay water quality even if the other nutrient inputs were severely restricted. This short term intensive study will:

- Determine the quantity, speciation and areal distribution of phosphorus in both St. Albans Bay and contiguous wetland sediments;
- Determine the temporal variability of phosphorus at several critically selected locations in the Bay and wetland;
- Determine conditions under which phosphorus in the Bay and wetland sediments is remobilized.

The results of this study will be used to explain and verify the observed trends in the Bay water quality that will be observed over the life of the Project.

Comprehensive Monitoring and Evaluation - Socio Economic

The Economic Research Service (USDA-ERS) is carrying out the socio-economic component of the St. Albans RCWP watershed project. The overall strategy for the evaluation of the socio-economic impact of the project requires that three issues be addressed: 1) Impacts of RCWP/BMP's on participating landowners and farmers in the project area; 2) Community and offsite impacts of the RCWP project and the resulting changes in water quality; 3) The cost effectiveness and benefits versus costs of various individual BMP's as well as the total project. To carry out this analysis a close working relationship among USDA-ERS, USDA-SCS, USDA-ASCS and the University of Vermont has been developed.

Information from this socio-economic evaluation will not only assist in decisions about continuing and/or modifying the national RCWP, but will also tell us how beneficial the St. Albans Bay Project was to Vermont and the Lake Champlain area. In particular, the socio-economic information will help policymakers and program managers compare the program's benefits against its costs, determine how the RCWP can be made more cost effective, and appraise which cost share rates provide sufficient incentives for program participation. Economic impacts associated with RCWP can be expected to arise in primarily two fashions: impacts associated with the change in water use, (i.e., what will be the impact on municipal or industrial water use, recreational use, etc.); and on-farm impacts associated with program compliance, (e.g., what will be the farm costs [benefits] of BMP adoption?).

The basic approach being followed in the evaluation of socio-economic impacts, and in the subsequent analyses of cost effectiveness and benefits versus costs, is to compare the project area and participating farms with the RCWP project and BMP's in place against what the situation would likely be without the implementation of the project and practices.

Data that reflect changes which occur during RCWP implementation will be used to help establish the with and without conditions. However such data are not expected to provide sufficient information data in and by themselves to completely document changes. Therefore, modeling approaches based on relationships from existing physical and economic research and professional judgement will also be utilized to estimate conditions and to help isolate effects of RCWP versus other factors causing changes. Through the use of the various techniques it will be possible to make statements regarding the impact of the St. Albans Bay RCWP Watershed Project on the economic status of the farmers and on the economy of the St. Albans Bay area.

CONCLUDING REMARKS

Based on my experiences, several concluding remarks are appropriate.

1. Runoff from agricultural lands is generally of lower quality than that from undisturbed lands. Agricultural non-point source pollution has been shown to be a nation-wide problem -- more severe and critical in certain areas of this country than in others. Further studies to document the importance of this problem on a national basis are not needed.

2. To reminisce just a bit it can be recalled that in the early 1960's -- before EPA, before PL92-500 — the water pollution field (then concerned solely with point source pollutants) was just awakening to the importance of "advanced" treatment technologies for the management of point source discharges. In the early '60's methods for phosphorus removal were nearly unknown, totally untried, yet today the employment of phosphorus removal techniques for point source treatment is commonplace. Today, in the early 1980's, we are at a similar point in our capability to manage non-point source pollution. BMP's, when placed on the land, in the best judgement of many experts, offer an opportunity to reduce and prevennt agricultural non-point source pollution. The efficacy of these BMP's and the development of new ones need a great deal more study. The experimental Rural Clean Water Program is but the first step.

3. Active local involvement of landowners through cooperative, complimentary, non-competitive local, state and federal programming is a most effective manner to insure widespread on-site BMP implementation.

4. The stakes are high. Agricultural lands must be managed and protected if their future viability for food and fiber production is to be assured. This entire issue of maintaining a viable agricultural land resource will — in the next decade or so — emerge as a critical national concern. It is indeed fortunate that whatever we do today and tomorrow to control agricultural non-point source pollution will, in addition to improving water quality, also protect our land resource for future generations. Whenever we reduce non-point source pollution, we not only protect our water resources but also we protect our future agrcultural productivity. We need both. How can we, as a nation, afford not to invest in programs that reduce agricultural non-point source pollution??

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STATEMENT OF CONGRESSMAN RON DE LUGO
SENATE COMMITTEE ON ENVIRONMENT
AND PUBLIC WORKS
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
APRIL 7, 1983

MR. CHAIRMAN:

I APPEAR BEFORE THE SUBCOMMITTEE TODAY TO DISCUSS ONE NARROW ISSUE THAT HAS ENORMOUS RAMIFICATIONS FOR THE PEOPLE OF THE UNITED STATES VIRGIN ISLANDS. THIS ISSUE AFFECTS MY CONSTITUENTS ALONE AND IS ONE THAT I FIRST RAISED BEFORE THIS SUBCOMMITTEE IN 1977.

THE ECONOMIC WELL-BEING OF THE VIRGIN ISLANDS HAS BEEN BUILT UPON THE CONTINUED VITALITY OF TWO INDUSTRIES: TOURISM AND RUM PRODUCTION. WE WELL UNDERSTAND THE IMPORTANCE OF PROTECTING THE ENVIRONMENT. THE NATURAL BEAUTY OF OUR ISLANDS IS RESPONSIBLE FOR THE LIVELIHOOD OF THOUSANDS OF VIRGIN ISLANDERS. AT THE SAME TIME, WE RECOGNIZE THE NECESSITY THAT OUR ISLANDS CONTINUE TO DEVELOP ECONOMICALLY, CONSISTENT WITH OUR ENVIRONMENTAL CONCERNS.

RUM PRODUCTION IS AN ACTIVITY THAT IS OF CRUCIAL IMPORTANCE TO THE ECONOMY OF THE VIRGIN ISLANDS. THIS IMPORTANCE LIES NOT SO MUCH IN THE JOBS AND INVESTMENT THAT ARE INVOLVED IN RUM PRODUCTION, ALTHOUGH THE ONE HUNDRED JOBS AND THE INVESTMENT OF A FEW MILLION DOLLARS ASSOCIATED WITH RUM PRODUCTION ARE SIGNIFICANT IN AN ECONOMY AS SMALL AS OURS. RATHER, THIS SUBCOMMITTEE SHOULD BE AWARE THAT FOR EVERY PROOF GALLON OF VIRGIN ISLANDS RUM SOLD IN THE UNITED STATES, THE GOVERNMENT OF THE VIRGIN ISLANDS RECEIVES THE $10.50 EXCISE TAX COLLECTED BY THE FEDERAL GOVERNMENT. THIS EXCISE TAX REBATE SYSTEM PROVIDED NEARLY $35 MILLION TO THE VIRGIN ISLANDS GOVERNMENT DURING FISCAL 1982. THAT IS ABOUT $300 FOR EACH VIRGIN ISLANDER, MAN, WOMAN, AND CHILD, AND IT CONSTITUTES THE LARGEST SOURCE OF REVENUE FOR THE TERRITORIAL GOVERNMENT APART FROM INCOME TAXES. CONSEQUENTLY, MR. CHAIRMAN, ANY ACTION WHICH ELIMINATES OR SIGNIFICANTLY HARMS OUR RUM INDUSTRY WOULD BE A SERIOUS BLOW TO THE PEOPLE AND GOVERNMENT OF THE VIRGIN ISLANDS.

TODAY, THE VIRGIN ISLANDS RUM INDUSTRY FACES TWO THREATS TO ITS FUTURE EMANATING FROM PROPOSED OR EXISTING FEDERAL LEGISLATION. ONE IS THE PROPOSAL, CONTAINED IN THE BILL IMPLEMENTING THE ADMINISTRATION'S CARIBBEAN BASIN INITIATIVE, THAT WOULD GRANT UNLIMITED DUTY-FREE ENTRY INTO THE U.S. TO RUM PRODUCED IN FOREIGN CARIBBEAN COUNTRIES. UNLIKE THE BRAND-NAME RUMS PRODUCED IN PUERTO RICO, VIRGIN ISLANDS RUM IS ESPECIALLY SENSITIVE TO PRICE COMPETITION. A SUDDEN INFLUX INTO THE UNITED STATES OF INEXPENSIVE FOREIGN CARIBBEAN RUM WOULD, THEREFORE, HAVE A DISPROPORTIONATE IMPACT ON THE RUM INDUSTRY OF THE VIRGIN ISLANDS.

THE SECOND, AND MORE IMMEDIATE, THREAT IS THE POSSIBILITY THAT THE ENVIRONMENTAL PROTECTION AGENCY WILL FORCE THE CONSTRUCTION OF A COSTLY AND ENVIRONMENTALLY UNJUSTIFIED TREATMENT FACILITY TO TREAT THE BIODEGRADABLE EFFLUENT PRODUCED IN THE COURSE OF RUM DISTRILLERY OPERATIONS. MR. CHAIRMAN, I BELIEVE THERE IS NO OTHER REGULATORY DECISION INVOLVING THE CONSTRUCTION OF A SINGLE INDUSTRIAL TREATMENT FACILITY THAT HAS AS GREAT A POTENTIAL IMPACT ON A STATE OR TERRITORIAL GOVERNMENT AS DOES THIS CASE. UNFORTUNATELY, I MUST REPORT TO YOU TODAY THAT MORE THAN FIVE YEARS OF ATTEMPTS TO OBTAIN ADMINISTRATIVE RELIEF HAVE NOT PRODUCED A SATISFACTORY RESULT.

THE BIODEGRADABLE EFFLUENT PRODUCED BY RUM DISTILLING OPERATIONS IS CURRENTLY DISCHARGED THROUGH AN OUTFALL INTO THE OXYGEN-RICH WATERS OF THE CARIBBEAN SEA OFF THE SOUTH SHORE OF ST. CROIX. THERE IT IS RAPIDLY ASSIMILATED WITHOUT CAUSING ENVIRONMENTAL HARM. THIS DISCHARGE IS NOT THE SOURCE OF LOCAL COMPLAINT. ON THE CONTRARY, THEY QUESTION, WHY A COMPANY SHOULD BE FORCED TO SPEND MILLIONS OF DOLLARS, AT LEAST TWICE THE BOOK VALUE OF ITS EXISTING FIXED PLANT, TO TREAT A DISCHARGE WHICH NO ONE HAS SHOWN TO CAUSE ANY IDENTIFIABLE HARM TO THE ENVIRONMENT.

LOCAL ENVIRONMENTAL AUTHORITIES ARE IN AGREEMENT ON THE BENIGN NATURE OF THIS EFFLUENT. THEY ARE CONCERNED ONLY ABOUT THE TEMPORARY DISCOLORATION TO THE OCEAN WATER CAUSED BY THE EFFLUENT PRIOR TO ITS DISPERSION. THEY TELL ME, HOWEVER, THAT THIS CONCERN COULD BE ADDRESSED BY THE ADDITION OF DIFFUSION EQUIPMENT TO THE END OF THE OUTFALL LINE, SOMETHING THE DISTILLER IS PREPARED TO INSTALL. DESPITE THE GOVERNMENTAL AND PUBLIC CONSENSUS THAT PHYSICAL OR CHEMICAL WATER QUALITY OFF OF ST. CROIX IS NOT BEING HARMED BY RUM EFFLUENT DISCHARGES, EPA HAS, TO THIS POINT, INSISTED UPON THE CONSTRUCTION OF A WASTE TREATMENT FACILITY. WHAT COMPOUNDS OUR CONCERN IS THAT THE FACILITY PROPOSED WOULD CONTRIBUTE TO AIR POLLUTION AND POSSIBLY EVEN CREATE A SOLID WASTE DISPOSAL PROBLEM WHILE DOING NOTHING TO ENHANCE THE QUALITY OF THE RECEIVING WATERS.

WHY HAS EPA TAKEN THIS POSITION? SUCH A FACILITY IS SUPPOSEDLY JUSTIFIED BY AN INTERPRETATION OF THE CLEAN WATER ACT IN WHICH EPA PLACES A PRIORITY ON THE REDUCTION OF THE EFFLUENT'S OXYGEN ABSORBING CAPACITY, TO THE EXCLUSION OF CONSIDERATION OF FACTORS OF WATER QUALITY, OTHER ENVIRONMENTAL IMPACTS, OR WHETHER ANY PERSON, FISH, OR PLANT WILL BE BETTER OFF AS A RESULT. THIS PERCENTAGE REDUCTION NUMBERS GAME IGNORES AN IMPORTANT FACT. THE WATERS OF THE CARIBBEAN SEA INTO WHICH THE DISCHARGE IS MADE ARE FULLY CAPABLE OF SUPPLYING THE OXYGEN TO CAUSE THE BREAKDOWN OF THE EFFLUENT WITHOUT HARMING MARINE LIFE. HOW DO I KNOW THIS? BECAUSE IT HAS BEEN GOING ON FOR MORE THAN FIFTEEN YEARS WITH NO FISH KILLS, NO SMELL, NO CONTAMINATION OF DRINKING WATER OR FOOD SUPPLY, NO ENDANGERMENT OF ANY SPECIES, AND NO PUBLIC DISTRESS.

DESPITE PENDING EFFORTS ON THE PART OF RUM PRODUCERS AND POLITICAL LEADERS IN THE VIRGIN ISLANDS TO PERSUADE EPA TO ALTER ITS ADMINISTRATIVE APPROACH, THERE APPEARS TO BE NO CERTAINTY THAT A REGULATORY SOLUTION TO THIS PROBLEM WILL BE FORTHCOMING. CONTINUED INSISTENCE UPON THE CONSTRUCTION OF THE TREATMENT FACILITY PROPOSED BY EPA WILL SEVERELY JEOPARDIZE THE ABILITY OF VIRGIN ISLANDS RUM PRODUCERS TO COMPETE SUCCESSFULLY IN A PRICE-SENSITIVE MARKET. EVEN IF THERE WERE NO CBI LEGISLATION PENDING, THIS SITUATION WOULD BE DESERVING OF LEGISLATIVE RELIEF.

MR. CHAIRMAN, YOU WILL RECALL THE EFFORTS THAT WERE MADE LAST YEAR TO SOLVE THIS REGULATORY PROBLEM. TWICE IN 1982 THE HOUSE PASSED AN AMENDMENT I PROPOSED THAT WOULD HAVE PLACED THE CONTROL OF DISCHARGES OF DISTILLERY EFFLUENT IN THE HANDS OF THE VIRGIN ISLANDS GOVERNMENT, WHERE A MEANINGFUL ASSESSMENT OF THE ENVIRONMENTAL CONSEQUENCES OF THESE EFFLUENT DISCHARGES CAN BE MADE. A COPY OF MY AMENDMENT, WHICH WOULD PROTECT WATER QUALITY AND PERMIT TREATMENT LEVELS TO BE BASED ON OBSERVABLE ENVIRONMENTAL CONDITIONS, IS ATTACHED AT THE END OF MY STATEMENT. JURISDICTIONAL CONSIDERATIONS IN THE SENATE PREVENTED ENACTMENT OF MY AMENDMENT LAST YEAR. I ASK THIS SUBCOMMITTEE NOW TO GIVE IT FAVORABLE AND EXPEDITIOUS CONSIDERATION.

THIS YEAR MY AMENDMENT IS INCLUDED IN LEGISLATION INTRODUCED ON BEHALF OF THE ADMINISTRATION TO IMPLEMENT THE TRADE AND TAX PROVISIONS OF THE CARIBBEAN BASIN INITIATIVE, S. 544. THERE IS A RECOGNITION IN MANY QUARTERS, INCLUDING THE ADMINISTRATION, THAT IT IS SIMPLY UNFAIR FOR THE VIRGIN ISLANDS RUM INDUSTRY TO BE FORCED TO COPE WITH INCREASED COMPETITION FROM NEIGHBORING ISLANDS NOT SUBJECT TO THE JURISDICTION OF THE EPA OR THE REQUIREMENTS OF THE CLEAN WATER ACT AND, AT THE SAME TIME, BEAR THE UNPRECEDENTED AND UNPRODUCTIVE INCREASE IN PRODUCTION COSTS THAT TREATMENT FACILITY CONSTRUCTION AND OPERATION WOULD ENTAIL. I SHOULD POINT OUT THAT INCREASED RUM PRODUCTION IN NEIGHBORING ISLANDS AT THE EXPENSE OF VIRGIN ISLANDS RUM PRODUCERS WOULD SIMPLY RESULT IN INCREASED DISCHARGES OF RUM DISTILLERY EFFLUENT INTO THE SAME BODY OF WATER FROM DIFFERENT LOCATIONS IN THE CARIBBEAN.

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Mr. Chairman, I am sensitive to the jurisdictional concerns of this Subcommittee and the Committee on Environment and Public Works. I can understand why some believe that amendments to the Clean Water Act, and not the CBI, are the proper legislative vehicle for any regulatory relief for the Virgin Islands rum industry. In fact, when the House Subcommittee on Water Resources, of which I am a member, considers amendments to the Clean Water Act, I will seek to have my amendment included in any bill the Subcommittee reports.

We cannot ignore, however, the presence of the CBI, the Administration's commitment to see it enacted quickly, or the devastating effect that such enactment would have in the absence of regulatory relief for the Virgin Islands rum industry. In the event that legislative action on the CBI precedes action on Clean Water Act amendments, I ask that there be no jurisdictional objections to the inclusion of my amendment in the CBI. CBI legislation that allows increased duty-free treatment for foreign Caribbean rum while failing to provide adequate regulatory relief to the Virgin Islands rum industry would be a true hardship for the Virgin Islands.

In closing, let me speak to the specific effects of my amendment. It would, in sum, grant the Virgin Islands Government control over the determination of treatment levels for the Virgin Islands rum industry's non-toxic effluent. First, the terms of my amendment would ensure the local water quality is protected, and protected by people who cannot afford to allow their ocean water quality to deteriorate. What is changed by my amendment? Simply

THIS -- IT AVOIDS THE AUTOMATIC APPLICATION OF TREATMENT STANDARDS THAT WOULD BE JUSTIFIED WITH RESPECT TO DISCHARGES INTO LAKES AND RIVERS IN THE MAINLAND UNITED STATES, BUT MAKE LITTLE SENSE WITH RESPECT TO A DISCHARGE INTO THE HIGHLY OXYGENATED OPEN OCEAN WATERS OF THE TROPICS. SECOND, THE ONLY PEOPLE CONCEIVABLY AFFECTED BY RUM INDUSTRY DISCHARGES ARE VIRGIN ISLANDERS. LOCAL CONTROL OF THESE DISCHARGES WOULD NOT PREJUDICE THE INTERESTS OF ANY OTHER ISLAND OR TERRITORY, AMERICAN OR NON-AMERICAN. THIRD, LOCAL CONTROL IS CONSISTENT WITH THE PRINCIPLE OF STATE "PRIMARY RESPONSIBILITY" FOUND IN SECTION 101(B) OF THE CLEAN WATER ACT. FINALLY, I WANT TO EMPHASIZE THAT ENACTMENT OF MY AMENDMENT WOULD NOT PROVIDE A PRECEDENT FOR OTHER CHANGES TO THE CLEAN WATER ACT. IT WOULD NOT ATTRACT RUM DISTILLERS FROM ELSWHERE IN THE U.S. SINCE IT PROVIDES RELIEF ONLY FOR EXISTING POINT SOURCES. IT WOULD NOT PROVIDE VIRGIN ISLANDS DISTILLERS WITH AN UNFAIR COMPETITVE ADVANTAGE OVER OTHER U.S. RUM DISTILLERS.

MR. CHAIRMAN, I ASK THAT MY AMENDMENT BE INCLUDED IN ANY CLEAN WATER ACT AMENDMENTS REPORTED BY THIS SUBCOMMITTEE AND THAT THERE BE NO JURISDICTIONAL OBJECTIONS TO THE INCLUSION OF MY AMENDMENT IN ANY CBI LEGISLATION WHICH MAY BE ENACTED. AT THIS TIME I WOULD BE PLEASED TO RESPOND TO ANY QUESTIONS OR COMMENTS MEMBERS OF THE SUBCOMMITTEE MAY HAVE.

PROPOSED VIRGIN ISLANDS RUM DISCHARGE AMENDMENT

Any discharge from a point source in the United States Virgin Islands in existence on the date of the enactment hereof which discharge is attributable to the manufacture of rum (alcoholic spirits classified under items 169.13 and 169.14 of the Tariff Schedules of the United States (19 U.S.C. § 1202)) shall not be subject to the requirements of section 301 (other than toxic pollutant discharges), section 306 or of section 403 of the Federal Water Pollution Control Act if --

(1) such discharge occurs at least 1,500 feet into the territorial sea from the line of ordinary low water from that portion of the coast which is in direct contact with the sea, and

(2) the Governor of the United States Virgin Islands determines that such discharge will not interfere with the attainment or maintenance of that water quality which shall assure protection of public water supplies, and the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allow recreational activities, in and on the water and will not result in the discharge of pollutants in quantities which may reasonably be anticipated to pose an unacceptable risk to human health or the environment because of bioaccumulation, persistency in the environment, acute toxicity, chronic toxicity (including carcinogenicity, mutagenicity, or teratogenicity), or synergistic propensities.

TESTIMONY OF

WILLIAM M. EICHBAUM

ASSISTANT SECRETARY FOR ENVIRONMENTAL PROGRAMS

MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE

ON S.431

THE CLEAN WATER ACT AMENDMENTS OF 1983

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

APRIL 7, 1983

I am pleased to have the opportunity to present testimony on the subject of non-point sources of water pollution to the Senate Subcommittee on Environmental Pollution at the occasion of the Subcommittee's hearings on Senate Bill 431.

As Assistant Secretary for Environmental Programs in the Maryland Department of Health and Mental Hygiene I am responsible for protection and improvement of the quality of Maryland's waters, including the Chesapeake Bay and its tributaries. This responsibility involves setting water quality standards, and administering permitting and enforcement programs for municipal and industrial discharges to ensure that standards are met. My agency also has the overall responsibility for abatement of non-point sources of pollution from urban and agricultural runoff, and for monitoring long-term trends in water quality to measure the success of control strategies.

The State of Maryland has long recognized the significant contribution non-point sources have made to the pollution of our waters, particularly the impact of sediment and nutrients on the Chesapeake Bay. We have undertaken a number of state-funded initiatives on our own to study and to control urban and agricultural non-point sources, and I believe Maryland's experience to date is valuable in pointing the way for other states, and in identifying the need for a federal role in the non-point source area.

In addition, Maryland has been an active participant in EPA's Chesapeake Bay Program. This seven-year study of the water quality of the Chesapeake Bay which is ending this year, has identified non-point sources as significant contributors to the problems of nutrient enrichment and accelerated eutrophication of Bay waters as well as of contamination of bottom sediments in the Bay with toxic

metals and organic compounds.

In this testimony I will use information and insights both from the EPA Chesapeake Bay Program research and from the State of Maryland's own experience to describe what we know about the problem of non-point sources and what we know about solutions to the problem. Drawing from this information I will suggest the direction that I believe Congress should take in addressing non-point sources of water pollution.

The Water Quality Problem

In Maryland we have a very good quantitative data base on both what the non-point sources of pollution are, geographically and by type, and on what their relative contribution is to the pollution of Maryland waters.

The Chesapeake Bay Program has assessed the "State of the Bay" both in terms of water quality, particularly with respect to nutrients and toxics, and in terms of the productivity of resources dependent on good water quality, including bay grasses and sensitive finfish and shellfish species, such as striped bass and oysters.

Figure 1 summarizes the State of the Bay for resources and nutrients. Most of the main Bay is considered only "fair", while many of the upper reaches of the tributaries are "poor" in terms of both living resources and nutrient enrichment. The Chesapeake Bay Program has documented a strong statistical correlation between high nutrient concentrations in various segments of the Bay and declines in reproduction of such fish species as striped bass, shad and oysters.

Figure 2 shows the extent of contamination of Bay bottom sediments with potentially toxic heavy metals above natural levels. In some

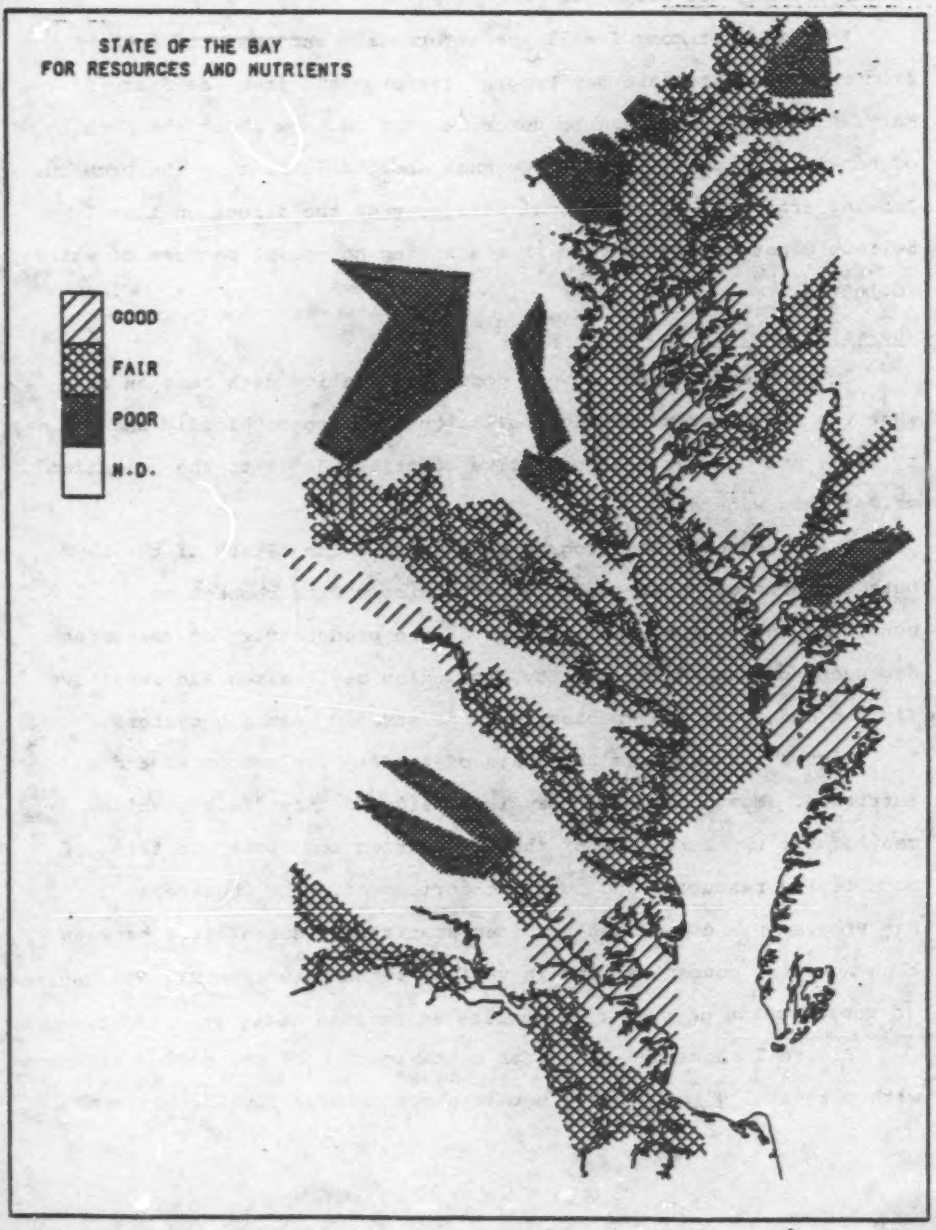


Figure 1. State of Chesapeake Bay based on both nutrients and living resources.

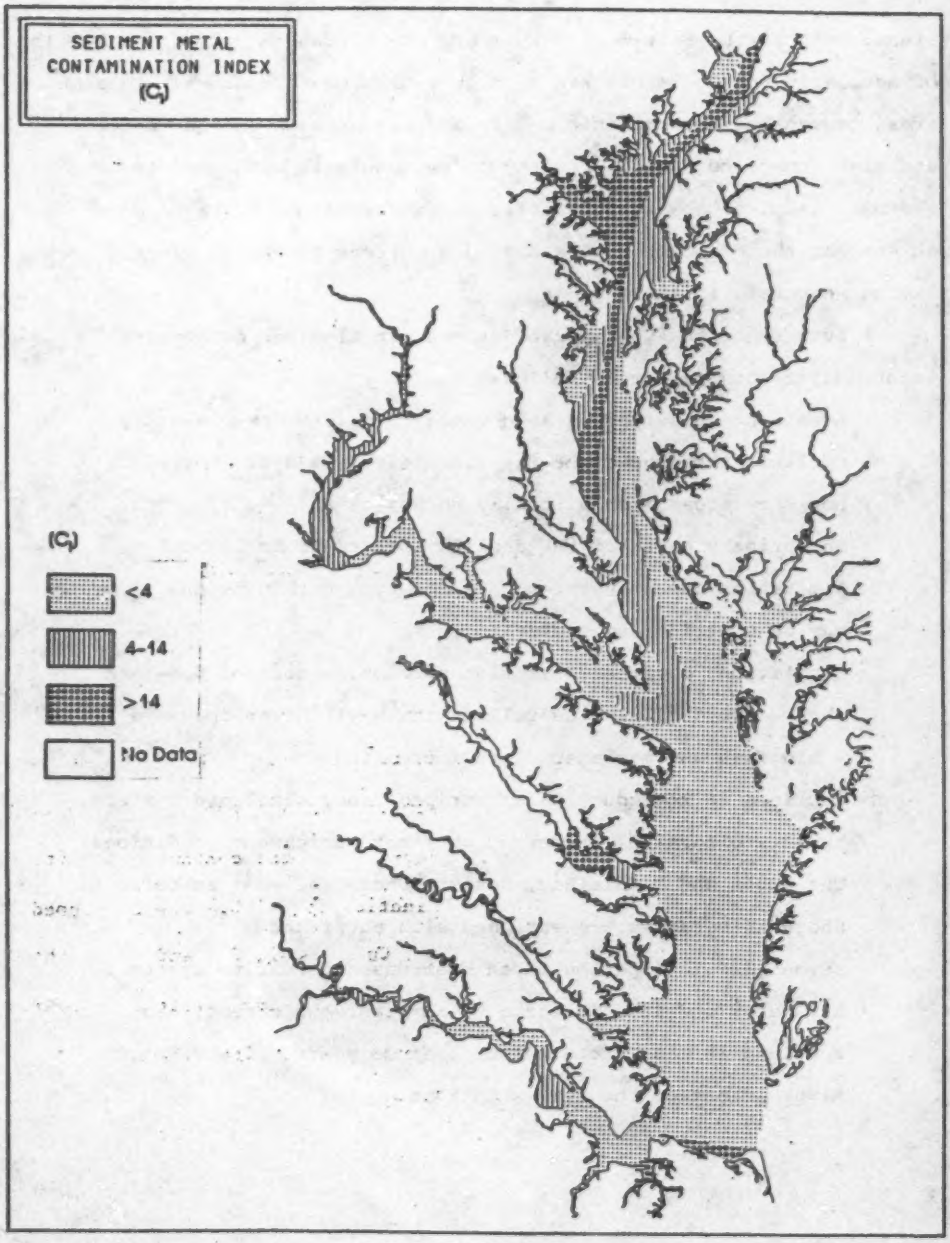


Figure 2. Contamination of bay sediments with heavy metals, relative to expected natural levels.

areas, such as the Baltimore Harbor and the Elizabeth River, the levels of metals in the sediments are high enough to cause concern. In some areas concentrations of toxic metals and organics in the sediments are high enough to cause mortality in test animals subjected to sediment samples; however, insufficient information exists to date on whether these sediments are posing a current threat to higher living resources in the Bay.

A summary of the Chesapeake Bay Program findings concerning water quality and resources follows:

- Levels of submerged aquatic vegetation (SAV) have sharply declined throughout the Bay since early 1970's. There are now many areas with virtually no SAV.
- The primary cause of SAV decline appears to be light limitation due to nutrient enrichment. Herbicide use may be contributing factor.
- Populations of freshwater fish species, - striped bass and shad - are declining overall in the Bay. Ocean spawners - bluefish and menhaden - are increasing.
- Declines in reproduction of striped bass, shad, and oysters, appear to parallel increased nutrient enrichment conditions.
- The Upper and Middle Bay, Western Shore and most Eastern Shore tributaries are enriched with nutrients beyond levels expected in an unstressed estuarine system.
- Bay water quality, in terms of nutrient enrichment, has declined in most areas in the last 20 years. Lower Potomac River is one of the few exceptions.

- The average annual concentration of total nitrogen and total phosphorus is approximately double that in the Upper Bay in 1960's.
- In the deepwater portions of Upper and Middle Bay, below 30 feet, there is little or no dissolved oxygen (DO) May-September. Low DO is a natural Bay phenomenon, but its areal extent and duration has increased markedly in recent years, probably due to decay of increased phytoplanking thriving on higher nutrient levels.
- The Chesapeake Bay is a sink for materials. Most pollutants are not flushed out of the Bay, but build-up in the sediments and bottom water and are recycled in the Bay system.

The Sources of Nutrients and Toxics

The nutrients, phosphorus and nitrogen, enter the Chesapeake Bay from several major sources: the atmosphere, rivers, point source discharges, and release from the sediment. The estimated percentage that each of the sources contributes to the Bay during the year is shown in Table 1.

TABLE 1. PERCENTAGE OF ANNUAL NUTRIENT LOADINGS FROM VARIOUS SOURCES(1)

Constituent	Atmospheric Sources	Riverine Sources	Point Sources	Sediment Sources
Total nitrogen	13	56	22	9
Total phosphorus	5	35	35	25

(1) Definition of Terms
Atmosphere: aerial input that directly lands on fluvial or tidal waters
Riverine: mass loadings of nutrients to Bay from above the head of tide.
Point Sources: nutrient loads from industry and municipalities below the head of tide.
Sediment sources: nutrient releases or loads from the bottom sediment of the Chesapeake Bay.

The riverine sources are those we normally think of as coming from diffuse runoff from the land, or "non-point" sources. Major land uses in the Chesapeake Bay basin and their estimated contribution to riverine nutrient loads are shown in Table 2.

TABLE 2. MAJOR LAND-USES ABOVE THE FALL LINE AND THEIR ESTIMATED CONTRIBUTION TO RIVERINE NUTRIENT LOADS

Land Uses	Percent in Basin	Percent of Riverine Nutrient Loads	
		TN	TP
Crop Land	15-20	45-70	60-85
Pasture	8-12	4-13	3- 8
Forest	60-65	9-30	4- 8
Urban	3- 5	2-12	4-12

The computerized watershed model developed for the Chesapeake Bay Program has estimated the relative contributions of major point and non-point sources of nutrients, by sub-basin, to the Bay. Figure 3 shows two pie-diagrams. The first illustrates the relative contributions of agricultural and urban non-point sources and municipal and industrial point sources of phosphorus from the Susquehanna, West Chesapeake and Upper Eastern Shore sub-basins to the Upper Chesapeake Bay during an average rainfall year. The second shows the relative contributions during a comparatively wet year. Clearly non-point sources are more important during a wet year.

The figure also shows that non-point sources contribute a total of 69% (58% agricultural, 11% urban) of the phosphorus entering the Upper Bay in a wet year and 45% (32% agricultural, 13% urban) in an average rainfall year. Thus, for the Upper Chesapeake Bay,

FIGURE 3. PHOSPHORUS DELIVERIES TO CHESAPEAKE BAY IN MARYLAND

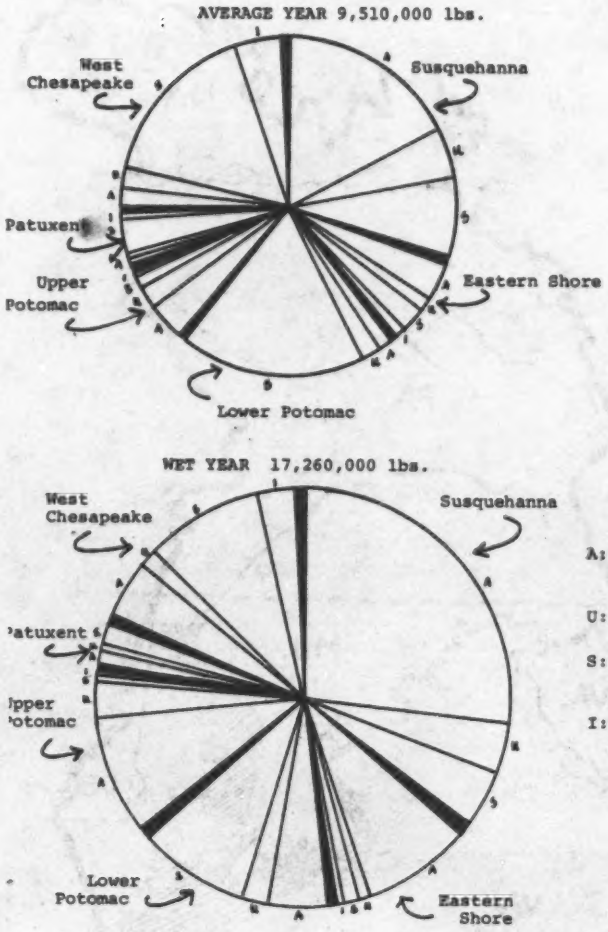
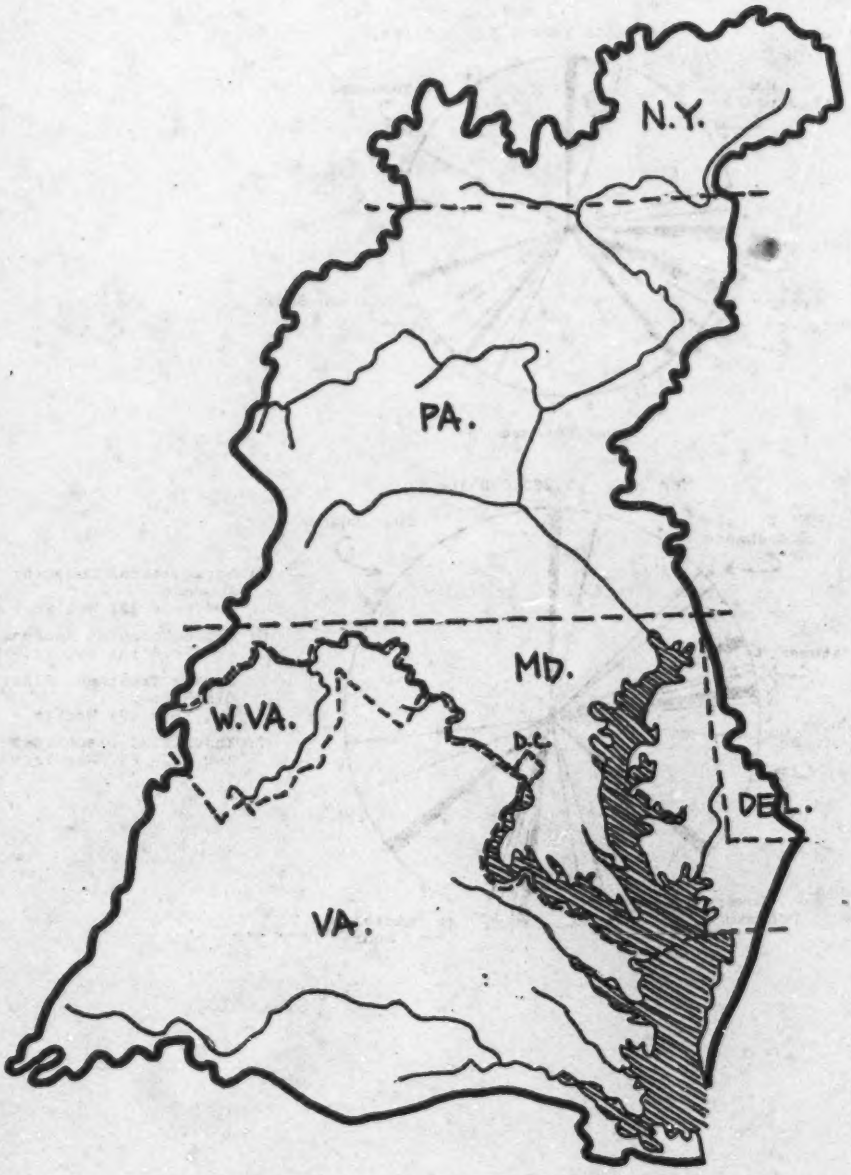


FIGURE 3A. STATES IN THE CHESAPEAKE BAY BASIN



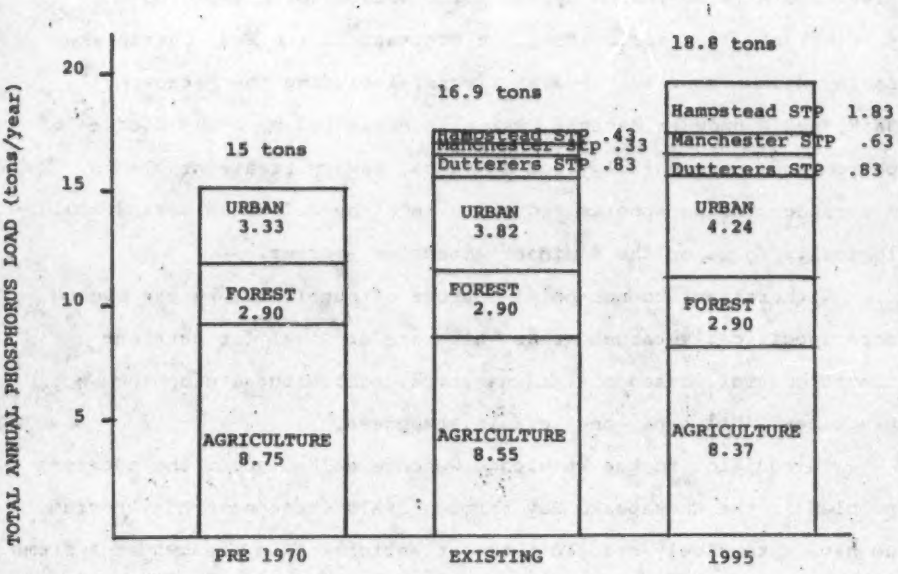
non-point sources of nutrients, particularly from agriculture, are a significant contributor to the problem of severe nutrient enrichment.

It is useful to understand how the relative importance of point versus non-point sources varies geographically as a basis for targetting management strategies. In Figure 3 the Susquehanna River Basin is dominated by non-point sources of phosphorus particularly from agriculture, in contrast to the West Chesapeake Basin (which comprises several rivers, including the Patapsco, Back, and Gunpowder Basins), which is dominated by point sources of phosphorus, particularly from municipal sewage treatment plants. A strategy for phosphorus reduction in either of these basins would logically focus on the dominant source or sources.

With respect to non-point sources of nutrients, we can even more specifically target areas which are critical for nutrient runoff control, based on land use type, agricultural cropping practices, soil type, and terrain steepness.

In addition to the knowledge we have gained about the nutrient problem in the Chesapeake Bay through EPA's Chesapeake Bay Program, we have extensively studied nutrient enrichment in freshwater systems in Maryland. Figure 4 displays past, existing, and projected phosphorus loads to Loch Raven Reservoir, north of Baltimore. Loch Raven is considered eutrophic due to nutrient enrichment caused by human activity. Over 90% of the existing phosphorus load comes from non-point sources. At eutrophic Liberty Reservoir, also near Baltimore, 100% of the nutrients over-enriching the reservoir are derived from non-point sources.

FIGURE 4. PHOSPHORUS LOADS TO LOCH RAVEN RESERVOIR



The State has studied, or participated in studies of the Patuxent River, Potomac River, Monocacy Creek, manmade lakes in Columbia, the Sassafras River, Baltimore Harbor, Back River, Middle River, and many rural streams. We have documented that non-point sources are major contributors to nutrient, sediment, and bacteria problems in all of these freshwater and estuarine systems in Maryland.

In urban areas, toxic compounds, including metals and organics, are also an important component of stormwater runoff. The Chesapeake Bay Program, in quantifying the loadings of metals to the Bay, estimated that urban runoff contributed 16% of the lead (Pb), 2% of the cadmium (Cd) and zinc (Zn), and lesser percentages of chromium (Cr), copper (Cu), and iron (Fe), entering the Bay. See Table 3.

TABLE 3. LOADINGS OF METALS FROM THE MAJOR SOURCES TO CHESAPEAKE BAY (VALUES IN METRIC TONS/YEAR)

Source	Cr	Cd	Pb	Cu	Zn	Fe
Industry	200 (19)[1]	178(66)	155 (22)	190 (22)	167 (6)	2006 (1)
Municipal Wastewater	200 (19)	6(6)	68 (10)	99 (12)	284 (10)	625 (1)
Atmospheric	---	3(1)	34 (5)	28 (3)	825 (29)	87 (1)
Urban Runoff	10 (1)	7(2)	111 (16)	9 (1)	63 (2)	977 (1)
Rivers	551 (53)	75 (28)	307 (43)	517 (59)	1444 (50)	199682 (77)
Shore Erosion	83 (8)	1 (1)	28 (4)	29 (3)	96 (3)	57200 (22)

[1]Values in parenthesis represent percent of total loading

We expect that the results of the National Urban Runoff Program (NURP) studies in metropolitan Washington, D. C. and Baltimore, due to be released this summer, will provide us with more specific estimates of the metals and organics non-point source loadings derived from these urban areas.

Controlling the Problem

The preceding section demonstrates that we have precise information in many areas of Maryland of the extent and impacts of the non-point problem.

Based on this information, we have begun to take some action on the State level to correct it. Table 4 describes Maryland programs in place for controlling major non-point sources. Some of these programs were initiated due to federal incentives or requirements, but most were developed on the basis of state-perceived needs.

The level of federal expenditures in Maryland for implementation of non-point source control programs, including actual construction of management facilities, in the period 1973-83, was only 4.4% of the amount of federal funds received in Maryland for construction of municipal sewage treatment works. See Table 5.

TABLE 5. FEDERAL FUNDS RECEIVED IN MARYLAND 1973-83 FOR IMPLEMENTATION OF WATER QUALITY IMPROVEMENT PROGRAMS

Point Sources:	Construction Grants for POTWs -	$1,096,105,011
Non-point Sources:	ASCS Agricultural Conservation	10,700,000
	SCS Conservation Operations	22,000,000
	RAMP (Rural Abandoned Mine Program)	870,000
	PL 566	12,100,000
	RCWP (Rural Clean Water Program)	3,500,000
	Total NPS -	$ 48,670,000

TABLE 4 MARYLAND PROGRAMS FOR CONTROLLING MAJOR NON-POINT SOURCES

NPS Type	Date & Basis for Program	Mandatory?	Agency Responsibility	Comments
agricultural pollution (sediment, fertilizer & waste, etc.)	1940s- {SCDs-state law SCS/ASCS-fed.law 1979 - State 208 Agriculture Plan (no law) 1982 - State funded cost-share law (unprecedented in Md.)	no	technical assistance SCDs/SCS cost-share ASCS (fed) OEP/MDA (State) OEP preparing to do ongoing, modest research	-SCDs committed, but understaffed -1970's &80's breathing new life in the program (State cost share is big boost) eventual results unknown now but outlook is hopeful
sediment control (construction, surface mining)	1970 - State sediment control law (no State funds to local agencies)	yes (farms exempt)	SCD-plan approval counties - enforcement oversight by WRA	-programs vary greatly from county to county -individual county programs fluctuate in quality over time -State must monitor regularly - endlessly
urban runoff (new development)	1970s- local ordinances in urban counties 1977 - WRA "policy" 1982 - State stormwater law (no State funds to locals)	yes	counties (plan review, watershed planning enforcement) oversight, research by WRA (State $, FEMA $)	-program being developed by WRA -most urban counties have quantity oriented guidelines -State agencies accepting
urban runoff (older areas)	no law	no	only incidental to other local functions	little being done
urban runoff (industrial)	1972 Clean Water Act (NPDES program)	yes	OEP makes runoff treatment a condition of many industrial permits	

NPS Type	Date & Basis for Program	Mandatory?	Agency Responsibility	Comments
hazardous waste sites	1976 State Hazardous Substances Act Federal RCRA 1980 Hazardous Waste Siting Board	yes	OEP (with EPA)	-aggressive action on large older sites -stringent new criteria for new sites -State ownership and operation of major hazardous waste sites
septic system	old State law, local law	yes	OEP, local health departments	-design criteria have gotten more stringent in 1970's

NOTES
- NPS: Non-point source
- SCD: Soil Conservation Districts (county-level)
- SCS/ASCS: Soil Conservation Service/Agriclutural Stabilization and Conservation Service (federal)
- WRA: Maryland Water Resources Administration
- OEP: Maryland Office of Environmental Programs
- MDA: Maryland Department of Agriculture

The State of Maryland was an eager participant in the "208" program established by the 1972 Clean Water Act, and we developed a State Agriculture Plan under the 208 program to address non-point sources. We felt that the withdrawal of federal support left a vacuum in the non-point source control area, which we have nevertheless tried to fill at the State level. Our recent Maryland initiatives have included the enactment last year of a Stormwater Management law which explicitly addresses the quality of runoff as well as quantity, and the passage of a $5 million State cost-sharing program for agricultural best management practices.

Despite our strong state commitment to non-point source control in Maryland, we believe there remains an important federal role, which I will address later in this paper. Having taken its own initiatives, and gotten the basic framework of non-point control programs established, Maryland will be in an excellent position to take advantage of any future federal assistance.

Effectiveness of Control Measures

A tremendous amount of literature exists on the kinds of facilities and techniques which can be used to control agricultural and urban non-point sources.

Additional information has been compiled on the on-site effectiveness and cost of various control techniques. Table 6 is a typical example from a study of the Occoquan watershed in Virginia.

Table 7 shows our general assessment in Maryland of the state of our knowledge about the benefits and costs of technical solutions for controlling major non-point sources.

TABLE 6 EFFECTIVENESS OF NON-POINT POLLUTION CONTROLS IN THE MARYLAND PIEDMONT AND COASTAL PLAIN*

	Best Management Practice (BMP)	Nutrient Reduction[1]	Heavy Metal Reduction[1]	Comment
urban area BMPs	various land use planning practices	10-30% and higher		
	some cut-back in residential fertilizer use	5-25%	--	
	street/parking lot sweeping -			
	once per week	25-30%	40%	most cost-effective BMP at 3-4/week in dense urban areas
	three per week	45-50%	60-65%	
	local road design modifications - reduced width, roadside swales, others	10-20%	15-20%	
	Stormwater Management:			
	a) runoff volume controls dutch drains, porous pavement, etc.	35-65%	80-90%	most cost-effective BMPs in low-density residential areas.
	b) runoff detention basins	33-48%	82-88%	
agricultural BMPs	low (or minimum)tillage	P: 50-60% N: 30-40%	-- --	proven cost-effective
	various other cropping and fertilizer practices	No Data		
	various animal waste management practices	No Data		

[1] Reduction in pollutants in runoff from specific sites.

*Adapted from NVPDC, Guidebook for Screening Urban Nonpoint Pollution Management Strategies, 1979

TABLE 7 TECHNICAL SOLUTIONS FOR CONTROLLING MAJOR NON-POINT SOURCES - MARYLAND'S ASSESSMENT

Problem	Nature of Control	Benefits	Cost	Comments
agriculture-sediment	many cropland BMPs well defined (no-till, cover crops, contour farming)	some on-site data available (still gathering it on watershed level)	generally reasonable	some farmers forget them after a while $ savings to farmer on no-till
agriculture-animal waste	on-farm waste mgmt. systems well-defined (tanks, lagoons, spreaders, diskers, etc.)	documented on-site (still gathering it on watershed level) (groundwater impact less known)	moderate (high for marginal farms)	dairy farmers welcome these ($ a problem for some)
sediment from construction sites	many BMPs for sediment/erosion well defined (sed. basins, hay bales, filter cloth, etc.)	on-site & off-site documented (easy to see, measure)	considered a normal cost of construction (reasonable)	an endless task for enforcers (counties) must sustain continuing effort
suburban runoff (post-development)	wet ponds, dry ponds infiltration techniques, source ctrl. (on-site housekeeping)	valid documentation of pollutant reductions still emerging - (NURP) -little or no data on reductions by some practices (eg. infiltration) -not all impacts understood -many BMPs not presently built for water quality but for quantity control (need to change design criteria)	-affordable for new housing -prohibitive in most older suburbs (except housekeeping)	gradually being accepted across Md. (new development) long term maintenance is unproven older areas essentially untouched

Problem	Nature of Control	Benefits	Cost	Comments
urban runoff	sub-surface catch basins, wet ponds, dry ponds, street cleaning, industrial on-site housekeeping infiltration (less likely)	NURP was supposed to gather data on some BMPs-national results not yet published downstream impacts poorly documented if at all	-basins, ponds costly -infiltration may be impossible -housekeeping etc. "doable", but competes in local budgets with other problems	almost nothing being done in Md. cities (eg. street sweeping for aesthetics but not for water quality)

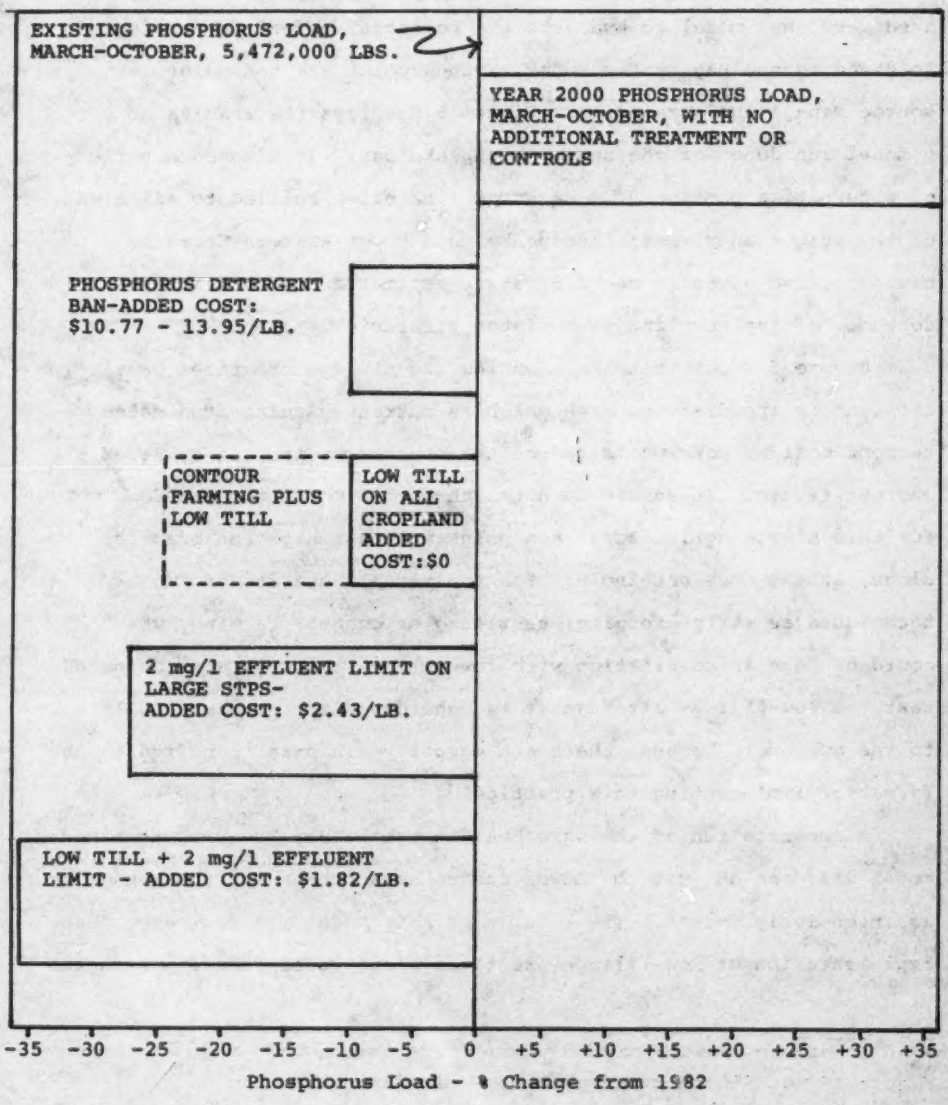
NOTES •BMPs: Best management practices
•NURP: EPA National Urban Runoff Program (research)
•These are the major types of human-caused non-point sources in Maryland; less important ones include acid mine drainage, failing septic systems, boating wastes, and forestry.

We have also been able to predict the effectiveness of implementing non-point source control measures on an areawide or watershed basis. The EPA Chesapeake Bay Program used the computerized watershed model to evaluate the potential effect on nutrient loadings to the Bay system under various point and non-point source management strategies. Figure 5 displays the results of a model run done for the upper Chesapeake Bay. It assumes a variety of alternative phosphorus management strategies applied to all areas of the Susquehanna, West Chesapeake, and Upper Eastern Shore sub-basins. Also given in the figure are estimated costs to the consumer of implementing each of the strategies.

Figure 5 shows that implementing low-tillage practices on all cropland in the drainage area which is currently cultivated using conventional methods would reduce the phosphorus loading by 8% of the current levels. It should be noted that this model run was done for this single agricultural non-point source management practice alone, and it does not include the additional benefits of such techniques as strip-cropping, terracing or contour farming, which could be done in combination with low-till. It should also be noted that the low-tillage alternative is considered to cost zero dollars to the consumer, because there are actually financial benefits to the farmer of implementing this practice.

A separate run of the same EPA Chesapeake Bay Program watershed model was done on just the Lower Susquehanna sub-basin, an area which is intensively farmed. The results of this model run indicated that implementation of low-tillage practices alone would reduce phosphorus

FIGURE 5. EFFECTIVENESS AND COST OF VARIOUS UPPER BAY PHOSPHORUS CONTROLS


EXISTING PHOSPHORUS LOAD, MARCH-OCTOBER, 5,472,000 LBS.
YEAR 2000 PHOSPHORUS LOAD, MARCH-OCTOBER, WITH NO ADDITIONAL TREATMENT OR CONTROLS
PHOSPHORUS DETERGENT BAN-ADDED COST: $10.77 - 13.95/LB.
CONTOUR FARMING PLUS LOW TILL
LOW TILL ON ALL CROPLAND ADDED COST:$0
2 mg/l EFFLUENT LIMIT ON LARGE STPS- ADDED COST: $2.43/LB.
LOW TILL + 2 mg/l EFFLUENT LIMIT - ADDED COST: $1.82/LB.
-35 -30 -25 -20 -15 -10 -5 0 +5 +10 +15 +20 +25 +30 +35
Phosphorus Load - % Change from 1982

loadings by 12%, while implementation of low-tillage practices plus using contour farming methods on all cropland in the basin would reduce phosphorus loadings by 30% in an average rainfall year.

The State has made estimates of the reductions in phosphorus loadings we could expect to achieve at Loch Raven Reservoir under various point and non-point source programs. The results of this assessment are shown in Figure 6. In this case, a goal was specified for the reservoir to achieve pre-1970 water quality conditions. It is clear from the figure that this goal could not be achieved solely by controlling point-source discharges.

To achieve the desired goal, at least some additional phosphorus reductions in the form of non-point source control measures would be necessary.

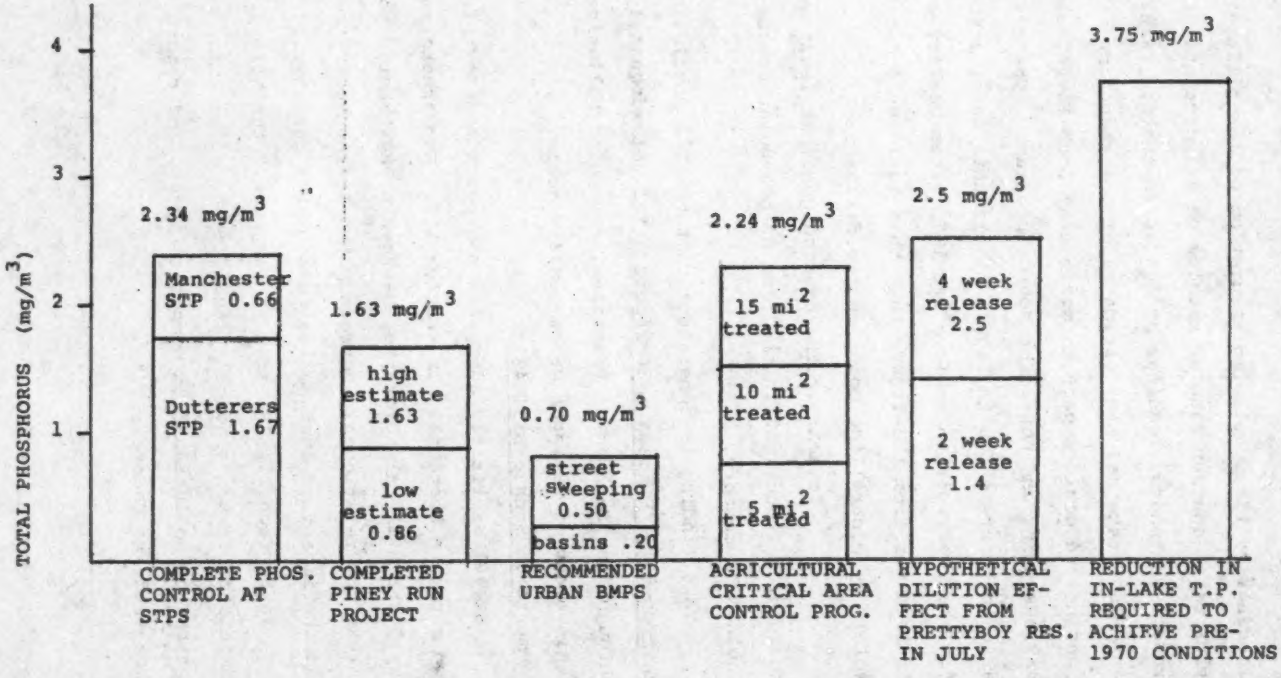
This finding is consistent with the EPA Conclusion in the Draft Environmental Outlook 1980 report: "If not adequately controlled through Best Management Practices, non-point pollution will prevent achievement of national water quality goals."

Comments on Senate Bill 431

S. 431 explicitly addresses non-point sources of pollution in two separate sections. In Section 117, "Chesapeake and Narragansett Bay," the bill calls for the Chesapeake Bay Program to "continue to assess the relationship between point and non-point source pollution and the impact of such pollution on water quality..."

In Section 11, "Reports to Congress," the bill directs the EPA Administrator to "conduct a study of the effects and methods of control of pollution from nonpoint sources and report the results of such study to Congress..."

FIGURE 6. REDUCTIONS IN LOCH RAVEN RESERVOIR TOTAL PHOSPHORUS CONCENTRATIONS ATTRIBUTED TO VARIOUS CONTROLS



I am pleased that this bill to amend and reauthorize the Clean Water Act contains language recognizing the importance of and addressing non-point sources. There are several points concerning the S. 431 language, and the problem of controlling non-point sources, that I think are important to make.

First, as I have pointed out in earlier sections of this paper, we in Maryland, and I believe throughout the rest of the nation as well, have a very clear, quantitative picture of the extent and impact of the non-point source problem. We also have a vast quantity of information on the techniques and strategies from which we can choose to solve the problem. Much of this information has been gained through federally-funded research, planning, and demonstration grant programs such as the National Urban Runoff Program, the Rural Clean Water Program, Section 208 (of the Clean Water Act) Programs, the Clean Lakes Program, the Soil and Water Resource Conservation Act Program, the Chesapeake Bay Program, and others.

While there remains additional needs for study, we should be very careful to specify what these are, so that we do not end up reinventing the wheel. It is my view that additional study and analysis of non-point sources should be focused in three areas:

- Additional analysis and integration of existing research already conducted. For instance, it has been rumored that EPA may never compile the results and data from all the NURP studies into a single summary report.
- Additional assessment of the real-world effectiveness of various control strategies in reducing non-point source

pollutant loads on a site-specific and areawide basis. This is the topic on which we are most lacking information and I feel this research is best funded at the national level.

- Continued development of computer models which can assist us to more accurately predict the effectiveness of various control strategies for river basins. A large number of such models exist, but most are in need of refinement to better reflect complex hydrodynamic and water quality relationships of freshwater and estuarine systems.

The second point I want to make is that there is an even more important need for continued and increased federal involvement in funding the actual implementation of non-point source control measures. The federal programs already in place to fund or cost-share non-point source controls, such as the Rural Abandoned Mine Program, and the Agricultural Conservation Plan Program should be maintained at least at their present levels and probably expanded. We have estimated in Maryland that we would need approximately $90 million over the next 20 years to abate agricultural runoff and animal waste problems in critical areas of the State. At present, our state-funded cost-share program will only provide $5 million toward these problems. Targetting of federal cost-share funds to such critical areas as the "Mason-Dixon Project" - a 22 county area in Maryland and Pennsylvania currently proposed for funding to the USDA - would make a significant contribution toward reducing nutrient loads from agricultural land in Maryland.

In addition, the federal government should begin to play a role in providing incentives for implementation of Best Management Practices in urban and developing areas. This is the area of non-point source control where states and localities have had to shoulder the entire burden, and where the per acre and per pound costs of nutrient reduction are the greatest. Yet these areas can have a major impact on water quality, especially with respect to toxics.

As I pointed out earlier in this paper, federal funds for non-point source controls received in Maryland have only been about 4% of those for point-source controls. We have achieved significant improvements in water quality in the State due to the construction and upgrading of municipal sewage treatment systems. However, we will not be able to achieve that final significant increment of improvement without substantially greater non-point source controls.

Finally, Section 117(a) concerning Chesapeake Bay, while it does not make specific reference to non-point sources, calls for grants to the states for implementing an interstate management plan for the Chesapeake Bay. We in Maryland expect that we would focus any grant funds that we might receive under this provision on urban and agricultural non-point source control measures, and we would encourage the other states in the Chesapeake Bay basin to do likewise, particularly our upstream sister state, Pennsylvania. In this context, the Chesapeake Bay Implementation Program could be seen as a prototypical experiment in carrying out a comprehensive non-point source control program. Our experience in the Bay might pave the way for a national non-point source control program.

Statement
by
Jerome C. Hytry
Associate Deputy Chief, State and Local Operations
Soil Conservation Service
U.S. Department of Agriculture

Before the
Senate Committee on Environment and Public Works

Mr. Chairman and members of the Committee, I am Jerome C. Hytry, Associate Deputy Chief for State and Local Operations, Soil Conservation Service (SCS), U.S. Department of Agriculture (USDA). On behalf of the Department of Agriculture and Secretary Block, I would like to express our appreciation for the opportunity to appear before your committee to discuss USDA involvement in addressing water quality problems from nonpoint agricultural sources.

Water quality problems from agriculture exist when sediment, fertilizer, pesticides, irrigation return flows, and animal wastes reach surface waters or subsurface aquifers in quantities or concentrations that preclude the maintenance of a desired water use or violate a water quality standard. The transport and subsequent delivery of these materials occur as a result of the runoff that occurs from rainfall, snowmelt, or irrigation. Department of Agriculture studies have shown that excessive erosion (sheet, rill, and wind blown) on nonfederal lands affected one-third of the Nation's cropland as of 1977; that in excess of 15 percent of the fertilizer applied to croplands washes into surface waters; that 25 percent of the livestock operations (179,000), have the potential to degrade water quality and that nearly 100 million tons of salt enter surface water each year primarily as a result of irrigation.

The pollutants that reach surface and ground water as a result of rainfall, irrigation, and snowmelt are referred to as nonpoint source pollutants and it is in this context that we intend to comment on Departmental activities.

The Department of Agriculture has been addressing nonpoint source pollutant problems for many years through programs like the Agricultural Conservation Program (ACP) administered by the Agricultural Stabilization and Conservation Service (ASCS) and the technical assistance and incentive programs of the Soil Conservation Service (SCS). Conservation measures such as terraces, contour strip cropping, conservation tillage, waterways, and others have reduced the level of soil erosion thereby reducing the amount of sediment and other agricultural related pollutants available for transport to receiving waters. When PL 92-500 was enacted in 1972, the Department began working with EPA in the development of Agricultural Water Quality Management Plans. In many cases, USDA personnel were assigned directly to state agencies having the responsibility for water quality. These and subsequent efforts have resulted in a series of cooperative interagency projects spread across the country, all aimed at demonstrating that proper onfarm conservation and management could minimize and/or eliminate impairments to desired water uses.

In 1978 EPA and USDA initiated 7 Model Implementation Program (MIP) water quality projects funded from a variety of sources. In 1979, $20.0 million of the ASCS ACP "National Reserve" was directed primarily to projects which claimed water quality problems. In 1980, Congress funded within USDA an "experimental Rural Clean Water Program" for $50.0 million and 13 projects were funded for a 10-year period. In 1981, $20.0 million was added to this experimental effort and 8 more projects went online. No new projects of this type have been funded since 1981. The results of these demonstration efforts are just now beginning to be realized.

The Model Implementation Program was our first experience in addressing off-site effects of nonpoint source pollution and each project was unique. We have

learned many lessons from this activity, some of which were realized early and have been incorporated into subsequent programs like the experimental Rural Clean Water Program.

In the western basin of Lake Erie, the Department has joined forces with EPA and soil conservation districts in an effort to reduce the phosphorus loading of Lake Erie. The accelerated use of reduced tillage is seen as a cost-effective means for controlling erosion and phosphorus runoff. The participation rate of farmers is exceeding available resources. This enthusiastic response seems to answer the question of voluntary cooperation to deal with nonpoint source water quality problems.

Clearly, resource management systems (conservation practices) can contribute in attempts to control the offsite effects of nonpoint source pollutants. We can demonstrate the effectiveness of the project approach where a specific problem is identified and its control attained by the combined efforts of the people who live in the drainage area. Participation increases sharply when we use this approach and our ability to reach an effective level of control is markedly improved.

Many different types of nonpoint source water quality problems are found throughout the country, therefore precluding a single uniform programmatic control approach. We know that we can reduce the input of agricultural "pollutants" through erosion control, animal waste management, nutrient management, etc., but currently we lack sufficient knowledge of the cause and effect relationships of the offsite problem to insure that conventional onsite management alone will be sufficient. We are specifically addressing this in five of the Rural Clean Water Projects where 10 percent of the total resources ($7.0 million) has been dedicated

to evaluation of the program. While we are hopeful that we can document general cause and effect relationships such attempts are often thwarted by the natural variability in rainfall, snowfall, etc. The five projects will complete their baseline data phase in 1983 and we are expecting definitive technical reports in November 1984.

The Department of Agriculture provides assistance to state and local units of government for a wide range of purposes including the control of natural resource problems resulting from agricultural land. Our experience in working with the U.S. Environmental Protection Agency as the Federal Government's lead agency for water quality has been satisfactory. We would envision a continuation of the interagency and cooperative Federal-State approach embodied in the Clean Water Act.

The Environmental Protection Agency will testify at a later date on the specifics of S. 431 for the Administration.

Testimony of

Jefferson D. Hughes

Manager, Environmental Services

Crown Zellerbach Corporation

On Behalf of the

American Paper Institute

and the

National Forest Products Association

Before the

Subcommittee on Environmental Pollution

Committee on Environment and Public Works

of the

United States Senate

April 7, 1983

I. Introduction

Good morning. I would like to thank Chairman Chafee and the members of this Subcommittee for allowing me to testify this morning on behalf of the American Paper Institute and the National Forest Products Association (API/NFPA) with respect to the control of silviculture nonpoint sources of water pollution.

My name is Jeff Hughes. I am the Manager of Environmental Services for the Crown Zellerbach Corporation in Bogalusa, Louisiana. I also serve as Chairman of the API/NFPA Nonpoint Water Quality Committee. API/NFPA are national trade associations representing over 2,000 member companies who own and manage forest lands and manufacture pulp, paper, and solid wood products. API/NFPA members have a direct interest in the effective implementation of nonpoint source pollution control programs.

For the past eight years I have been involved in the development of nonpoint source control programs on a national basis for my company. In addition, I participated in the development of programs in Louisiana and Mississippi to address silviculture nonpoint source pollution under Section 208 of the 1972 Federal Water Pollution Control Act.

Accompanying me today is Dr. George Ice of the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI). NCASI is the environmental, technical studies arm of the forest products industry. Since 1977, Dr. Ice has conducted industry-sponsored research projects on the water

quality impacts of forest management activities, the effectiveness of improved management practices to control silviculture nonpoint source pollution, and the implementation of federal and state silviculture nonpoint source control programs.

II. Impact of Forestry Activities on Water Quality

Much of the interest in the water quality impacts of forestry activities has been focused, in recent years, through the Clean Water Act's Section 208 program. Through Section 208 EPA fostered active programs in a number of states to: (1) assess the impacts of forestry activities on water quality; and (2) devise management practices and control programs, where necessary, to achieve water quality goals.

The results of state Section 208 planning efforts to date have shown considerable variation in programs from state to state. This variability makes it very difficult to draw any generalizations about the 176 areawide and 49 state Section 208 planning programs. However, based upon the data base developed as a result of the Section 208 planning process, we believe that a general perspective on the water quality impacts associated with silviculture activities has been gained by EPA, the states, and the forest industry.

In general, water from forest lands is of high quality and supports the most sensitive water uses. For example, almost all western cities and most eastern cities have municipal water supplies in forested areas. In

addition, trout and salmon fisheries depend upon high quality water from forested watersheds.

Based on existing water quality data, which in many cases are admittedly still incomplete, silvicultural activities have not been considered a major, overall, nationwide water quality management issue. However, forest management practices which potentially impact water quality on a localized basis are recognized. These difficulties are usually caused by improper application of forestry practices such as logging road construction, skid trail location, and certain types of site preparation for replanting trees. However, the type and severity of the problems, as well as the nature of the particular silvicultural activity causing the difficulty, vary considerably from state to state due to topography and other local conditions. There is considerable variability even within states in some areas.

In most cases, sediment is considered the primary source of pollution from forestry activities. However, the study report of the Society of American Foresters' Clean Water Act Task Group indicates that sediment from forest lands is estimated to be less than 4% of the total man-caused sediment in the Nation's water. This is particularly significant considering that there are 718 million acres of forested land in the United States which constitute approximately one-third of the total land area.

A reflection of the magnitude of the problem caused by silviculture is the fact that only ten of the 225 Section 208 planning agencies, in their initial problem assessment, identified forestry activities as a priority

problem to be addressed by the Section 208 program. In other cases, Section 208 planning agencies have identified either problems which are geographically localized, or problems caused by specific types of activities. While not priority problems, these localized difficulties were addressed during the Section 208 planning process.

III. Forest Industry Involvement in the Development of Nonpoint Source Control Programs Under Section 208 of the Clean Water Act

In November 1975, EPA issued the first in a series of regulations and guidance materials that required the states to utilize the Clean Water Act's Section 208 planning process as the primary mechanism for addressing nonpoint source pollution problems from silviculture, as well as from a number of other sources. Since the development of these EPA policies, the forest industry has assisted in the implementation of the Section 208 process nationally, regionally, and on a state-by-state basis. Nationally, the American Paper Institute and the National Forest Products Association have maintained an active program dealing with Section 208 planning since 1975.

From an industry perspective we feel that our involvement with EPA and other agencies at the national level has been positive in terms of working toward reasonable and effective Section 208 programs. One index of the nature of our involvement at the national level is that, API/NFPA supported reauthorization and continued appropriations for the Section 208 program, through the completion of Section 208 plan development in 1980.

In addition, API/NFPA have developed a cooperative research program on forest practices and water quality with the National Council of the Paper Industry for Air and Stream Improvement. NCASI's January 1983 report, "Summary of Silviculture Nonpoint Source Control Programs - 1982," is attached to our statement. We highlight he conclusions of this report below.

At the regional level, a number of regional forestry associations have organized forestry involvement in the Section 208 process, and provided a forum for the exchange of information on the progress of Section 208 planning in each state. However, due to the nature of the Section 208 program, most of the action has taken place at the state level. In almost every state with a substantial forest land base, the forest industry has contributed to the Section 208 planning process by providing its expertise, cooperating in assessment studies, and even funding studies of management options.

There are almost as many different varieties of Section 208 programs for silviculture nonpoint source control as there are states that worked with the silviculture category. The variation in these programs strongly reflects: (1) the nature, type, and extent of the problem identified in each state; (2) the nature of the ownership of the forest land base; (3) the differences in analyses as to the most effective way to reach those operators or landowners causing the problems; and (4) the nature and effectiveness of existing institutional arrangements for implementation in each state. With at least this many variables to consider, the differences in the types of state programs adopted should come as no surprise.

This variation is healthy. As the NCASI study demonstrates, this variability has provided us with the opportunity to assess the effectiveness of the different types of programs. This will allow us to modify our efforts to achieve effective programs when needed, as we continue to progress through various stages of program implementation at the state level.

Our involvement with the Section 208 program to date has convinced us that at least three basic principles are absolutely essential to the development of any type of program to address water quality problems from forestry activities. These principles include: (1) site-specific application of nonpoint source controls; (2) flexibility in developing control programs; and (3) utilization of existing expertise in nonpoint source control.

A. Site-Specific Application of Nonpoint Source Controls

Because of the variability in the nature and types of nonpoint source pollution problems, we believe that it is imperative that efforts to address nonpoint source pollution continue to be focused at the state level. Control of nonpoint source pollution requires solutions that can be applied in a site-specific fashion. EPA's current regulations and guidance laudably recognize the need for this type of focus in the Section 208 program.

EPA's approach to developing Best Management Practices (BMP's) to protect water quality fosters the concepts that: (1) states, as opposed to federal agencies, will determine whether a practice is indeed a BMP; (2) alternative practices will be examined; and (3) such practices must be

technologically and economically practicable before they will be adopted. EPA's approach has also supported the notion that the application of Best Management Practices must be tailored to site-specific conditions. BMP's may, therefore, vary from site to site depending on the nature of particular silvicultural activities and related potential water quality problems.

B. Flexibility in Developing Control Programs

In addition to the need for site-specificity in the development of control practices, we believe that the states must continue to have the option to implement a broad spectrum of control programs. Thus, we strongly support EPA's policy of providing the states with sufficient flexibility to consider a variety of alternative control programs for dealing with silviculture as well as other nonpoint sources of pollution. In the same way that the severity and specifics of silviculture practices (and any related nonpoint source pollution problems) vary from state to state, so do the control programs that the states are implementing.

For example, a number of states have developed programs emphasizing education of, and training programs for, landowners and forestry operators. We believe that this type of program is well adapted to many of the southern states because of the predominance of small, private, nonindustrial landowners in these states. In the South, 70% of the forest land base is held by small landowners. The nonregulatory approach, with the subsequent utilization and improvement of existing extension, education, training, and incentive programs is the most effective way to assure the implementation of Best Management

Practices on the ground. In the South, particularly, this approach has proven successful in encouraging good forest management.

In other states, other types of approaches have been developed. The West Coast states have adopted state forest practice acts which are regulatory programs designed to control various aspects of forest management, including water quality impacts. In some of the northeastern states, licensing programs for forest operators and loggers have been implemented as a result of the Section 208 planning program. States should be allowed to evaluate and utilize a wide variety of possible nonregulatory and regulatory programs for the control of nonpoint source pollution. We urge retention of this approach in dealing with Section 208.

C. Utilization of Existing Expertise in Nonpoint Source Control

A final important element in the administration of nonpoint source control programs is the need for the application of technical and professional expertise in the development of BMP's and program implementation. The variability in silvicultural activities and nonpoint source water quality impacts makes the application of forestry expertise an essential part of the process.

In every state where we have an interest, we have encouraged the state forestry agency — the agency with silviculture expertise in the state — to take the lead in developing the silviculture portion of the Section 208 plan. In many cases, state forestry agencies have been chosen as the implementing

agencies for the silviculture portions of the Section 208 plans. This is a trend we support. In our view, focusing the nonpoint source aspects of Section 208 planning at the state, rather than the areawide level, is one way of taking advantage of the existing expertise of many state agencies in dealing with some nonpoint source categories.

In order to provide the Subcommittee with a perspective on where state Section 208 efforts have led us, we would like to share the major findings and conclusions of NCASI's most recent survey of state silviculture nonpoint source control programs. As indicated above, the complete report is attached. We will highlight major points below.

IV. Summary of Results From the 1982 NCASI Survey of State Programs

A. Nature of State Programs to Control Nonpoint Source Contributions from Silvicultural Activities

(1) Regulatory Programs

Seven states can now be characterized as having regulatory programs for silvicultural activities. Oregon, Washington, Idaho, and California base much of their nonpoint source control programs on the provisions of forest practice act regulations. The Alaska Forest Resources and Practices Act has only "advisory" Best Management Practices but the prior notification aspects of this Act allow for water quality protection.

Nevada has detailed rules under the Nevada Forest Practice Act which cover erosion control and stream-protection zones. The mandatory use of performance bonds to assure satisfactory compliance with the Nevada rules qualifies this program as regulatory in nature.

In New Hampshire, the "Intent to Cut" form required for harvesting operations allows an operator to sign an agreement to implement BMP's. The "Intent to Cut" form permits monitoring of operations for water quality protection. Failure to sign the agreement to use BMP's, followed by subsequent water quality problems, will result in the operator being required to submit plans for future operations.

(2) Quasi-Regulatory Programs

Four states do not have programs specifically covering silvicultural operations, but have opted instead to emphasize existing regulations designed to control sediment or organic debris in streams. These state programs have been designated as quasi-regulatory because state regulations are not comprehensive for forest activities, or are directed mainly at non-silvicultural activities.

Massachusetts, for example, has legislation requiring prior notification before harvesting and a Slash Law requiring debris be kept out of streams. In Pennsylvania, all activities causing soil disturbance are subject to regulation under a Clean Streams Law. In Maine, road construction BMP's

and regulations limiting erosion and sedimentation are enforced, while the silvicultural program involves mainly educational efforts. Hawaii, has strict land-use planning. Under one land-use category, sediment losses are controlled.

(3) Nonregulatory Programs

The majority of states that addressed silviculture (twenty-seven) have adopted nonregulatory control programs. Almost all of these programs involve education efforts to inform operators about BMP's which have been developed for the state. Educational material used includes pamphlets, instruction guides, TV public-service announcements, newsletters, posters, and slide/tape shows. Workshops, tail-gate lectures, and demonstration projects are also being used.

EPA recently sponsored a workshop to assist state forestry, water quality, and extension-service personnel from 6 states (Arkansas, California, Montana, New Hampshire, Oklahoma, and West Virginia) with their Section 208 educational program. Several states will be using EPA's and the U.S. Forest Service's National Training Package (NTP) material which is now becoming available for education purposes.

Another technique used by several states to encourage the use of BMP's is to integrate water quality protection practices into normal forest-extension planning. State studies have shown that professional consulting -- provided either by state foresters, industry foresters, or

private consultants -- results in a higher rate of BMP use and effective water quality protection.

A third technique used in a few state programs involves incentives to promote the use of BMP's. The best developed cost-sharing program is Minnesota's, where $100,000 was used annually, specifically to encourage the use of silvicultural BMP's. This program, which lasted 3 years, is now being considered for resinstitution. Several other states are attempting to use federal programs like the Forest Incentive Program (FIP) and the Agricultural Conservation Program (ACP) to encourage BMP implementation.

A final technique for voluntary programs might be called a peer-pressure or peer-encouragement approach. For example, in Vermont, when a complaint about a forest operation is received and found to have some basis by a State Water Resources Investigator, a committee from the Vermont Timber Truckers and Producers Association will visit the site and encourage the logger to resolve the problem with appropriate practices.

(4) Other Programs

In many Western states, public lands (primarily U.S. Forest Service and U.S. Bureau of Land Management ownership) constitute a large percentage of the commercial forest land. Both of these agencies have regulations protecting water quality. Therefore, agreements of understanding between the designated Section 208 agencies for the state and the major federal land management agencies to continue to improve water quality protection measures are the primary means of silvicultural nonpoint source control.

B. State Approaches to Addressing Implementation Problems

In 1980, four of the problems most frequently identified by state agencies as impeding progress in their silvicultural nonpoint source control programs were: (1) lack of funds; (2) limitation of agency personnel (both manpower and experience); (3) problems in implementing existing controls or statutes; and (4) the difficulties of contacting and informing small landowners. State agencies continue to show a desire and, in many cases, great ingenuity in addressing these problems.

For many state programs funding will not be available from federal sources to support silvicultural Section 208 programs. However, rather than let these Section 208 programs lapse, some state forestry agencies are absorbing nonpoint source control responsibility into their normal forestry extension work. Industry cooperation in hosting workshops, and in training company personnel has been noted in several states.

The upgrading of agency personnel technical skills to deal with forest nonpoint source questions is probably the difficulty most consistently addressed by state agencies. The reason for this is that training of agency personnel results in multiplying benefits as they interact with forest operators.

Some state agencies found that there were existing state laws and regulations to control nonpoint source pollution. In some cases, delays in notification of silviculture activities limited the effectiveness of these

controls. In other cases, the agencies with control responsibilities lacked on-site personnel. The EPA-sponsored agency master planning projects addressed these problems by identifying existing nonpoint source controls and fostering cooperation between the state forestry and water resources agencies.

Finally, contacting and educating numerous small landowners is a management problem which is common to many programs; especially those with a high proportion of non-industrial forest land. Surveys of forestry operations have shown that these non-industrial operations are the most likely to have water quality problems.

C. State Assessments of Section 208 Program Accomplishments

By 1982, several state programs had been operating for a sufficient time so that judgments about program success (and even surveys or enforcement records to document progress) are available. The most important step in implementing a lasting nonpoint source control program would be the integration of water quality concerns into normal forest operations. Comments by state agency personnel indicate that this important step is being accomplished for many programs.

State agency personnel report improvement in both water quality concerns, and cooperation with control programs by forest managers. Several states have conducted field assessments of their programs. Most of these assessments have shown effective water quality protection, and an increased awareness of BMP's associated with forestry activities.

Another measure of program success or failure is the number of enforcement actions and complaints concerning forest operations. In this respect, enforcement records and program assessments have shown that the regulatory programs — in states which used forest practices acts — have been effective.

The NCASI survey did discover, however, that some states are finding additional control needs as they proceed to implement their programs. We plan to continue to work closely with these states to assure that these problems are corrected. The attached NCASI report provides considerable detail on the progress being made in each state with a silviculture nonpoint source control program.

D. Prospects for Continued and Effective Section 208 Program Implementation

In 1980, some state administrators predicted that nonpoint source control activities under Section 208 would cease unless federal appropriations were provided to support implementation of state programs. While some monies have been made available to state silvicultural nonpoint source control programs (usually as carry-over Section 208 funds) most federal support has or will shortly be terminated. Therefore, in 1982, NCASI asked state agency personnel to project the future of their programs.

Of the 40 states with a silvicultural nonpoint source control program, 30 projected that their programs would continue as currently operated. States

like Oregon and Washington consider their programs to be independent of Section 208 funding for operations because the forest practice acts are financially supported through the states. However, these programs will be cut back in their ability to conduct extensive studies on complex water quality protection questions that might indicate needed forest practice changes. Washington, for example, used $487,000 in Section 208 grants between 1977 and 1981 to conduct studies on forest roads, stream management zones, slope-stability, compliance with the Washington Forest Practice Act and other issues.

Other states provide substantial financial support to their forest nonpoint source pollution protection programs so that continued effective programs can be anticipated. Many states will have to reduce their activity levels. However, since educational materials have been produced and BMP's have been developed and evaluated, the continuation of these programs with reduced funds is possible. Extension foresters will be incorporating BMP considerations into their informational efforts for these states.

In some states, including California and Kentucky, agency personnel are anticipating an adjustment period as programs are finalized and implemented. In other states (Georgia, New Hampshire, New York, North Carolina, and West Virginia) lead agencies will be making decisions about future program direction based on the results of ongoing (or recently completed) assessments.

Some state agency personnel have reported that programs will be downgraded because of lack of funds. In New Jersey, management emphasis is being shifted from private lands to state lands and the activity level for Section 208 is described as "maintenance." In Virginia, agency personnel anticipate a decrease in state activities in silvicultural nonpoint source control, and identify the need for "industry and consultants" to continue the program. In Montana, staff working on an education program have been cut, but most of the educational material for a workshop program is apparently ready. At least part of an educational program will be accomplished.

Summarizing, it appears that the tools (educational material, BMP's) for programs have been developed and most states will be carrying out their nonpoint source control responsibilities using either state funding, low-cost, industry-state cooperative programs, or by incorporating nonpoint source control recommendations into normal forest planning and extension activities.

E. Estimates of Benefits and Costs of Section 208 Silvicultural Nonpoint Source Control Programs

Substantial costs have been incurred and benefits accrued as a result of the nation's silvicultural nonpoint source control programs. A problem in assessing program worth has been the lack of cost and benefit data for state programs. There remains an information gap on the costs and benefits of most nonpoint source programs. For example, in response to the question "are there any estimates of the costs and/or benefits of the silvicultural nonpoint source control programs for your state;" only a few state representatives had cost estimates, and not one was able to provide any benefit estimates.

Costs involve: (1) the Section 208 program development costs of assessing the silvicultural problem and organizing an effective program, (2) implementation and continuing program costs; and (3) add-on costs to operators to comply with guidelines or mandatory Best Management Practices. California, Washington, and Oregon are the most expensive with annual program costs of $3,400,000; $1,400,000; and $1,350,000 to cover management and enforcement of Forest Practice Acts. Nonpoint source program personnel for several states like Vermont and South Carolina anticipate no future funds for program operations but will continue programs using existing resources.

The add-on costs of complying with BMP's can be substantial when considered statewide, even though most BMP's are designed to be cost-effective. For a few states, estimates of add-on cost for compliance with Forest Practice Act rules have been developed. These cost estimates are included in the attached report.

Direct quantification of benefits resulting from the silvicultural Section 208 programs are not available. A major emphasis in the EPA strategy for FY-83 is to aid states in securing information to estimate benefits. Although these estimates are not currently available, there are several indirect measures — described in the attachment — of benefits to the forestry community resulting from nonpoint source protection programs.

Probably the best measures of benefits resulting from the nonpoint source control programs are the generally favorable assessment of program accomplishments by state agencies, and the decreases in citizen complaints about forest practices. These favorable assessments and enforcement records

indicate that silvicultural nonpoint source programs are protecting water quality, which is the ultimate benefit and goal of the Section 208 program.

V. API/NFPA Support Section 11(g) of S. 431

Section 11(g) of S. 431 states that:

> "The Administrator shall, in consultation with appropriate local, State, and Federal agencies, public and private organizations, and interested individuals, conduct a study of the effects and methods of control of pollution from nonpoint sources and report the results of such study to the Congress not later than one year after the date of enactment of the Clean Water Act Amendments of 1983."

API/NFPA support the objectives of this section. We cannot speak authoritatively about other categories of nonpoint sources of pollution. However, based upon NCASI's research, we believe additional information would be useful to assess: (1) the effectiveness of current Section 208 silviculture nonpoint source control programs; (2) the costs and benefits associated with these programs; and (3) the value of federal funds to assist in further program implementation. We hope to work closely with the Congress, EPA, and other interested groups should this provision be passed into law.

VI. Conclusion

During the four year period of 1979-1982, silvicultural nonpoint source control activities, which were promoted by Section 208 of the Clean Water Act, have matured from plans developed from preliminary problem assessments to operating and remarkably successful programs.

In conclusion, the overall status of silvicultural control programs can be described as good. Many states have conducted formal field investigations and have found their programs to be working. Other states have made adjustments in response to identified problems, in order to improve the effectiveness of their programs. Still other states are planning or have underway, program assessments.

The majority of state agency personnel that NCASI surveyed felt that onpoint source policies had been incorporated into their forest management activities, and that the forest industry was also incorporating nonpoint source concerns in its planning and operations. The effectiveness of the nonpoint source program is probably best manifested in the regulatory exemptions accorded operations which conduct their activities using BMP's, and in the reductions in forest water quality complaints reported by several states.

We understand that future NCASI surveys will attempt to determine whether these apparent improvements are an artifact of the economic slowdown or represent true practice improvements. Some preliminary survey data indicate that BMP's are being used more frequently in normal forest operations.

Mr. Chairman, I would like to thank this Subcommittee for the opportunity to testify. I will be happy to answer any questions you may have.

ncasi special report

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SUMMARY OF SILVICULTURAL NONPOINT SOURCE CONTROL PROGRAMS - 1982

SPECIAL REPORT NO. 83-01

JANUARY 1983

[The following has been excerpted from the above named report. The complete report has been retained in the committee files.]

SUMMARY OF SILVICULTURAL NONPOINT SOURCE CONTROL PROGRAMS - 1982

I INTRODUCTION

Water protection activities associated with forest operations predate passage of the Water Pollution Control Act Amendments of 1972 (1). However, passage of the 1972 Act, in which Section 208 specifically called for identification and control of silvicultural related nonpoint sources (NPS) of pollution, has resulted in an acceleration of forest NPS control activities. Initially, EPA proposed a model forest practices act which might have resulted in uniform state regulatory programs. However, this approach ignored the existing forestry community and unique state forestry programs and traditions. As a consequence, the model forest practice act was generally opposed by the forestry profession and was withdrawn by EPA (2).

In 1977, guidelines were issued by EPA which allowed states to develop either regulatory or voluntary nonpoint source control programs if ". . . such programs were adequate to achieve desired water quality goals" (3). This final shift away from the model forest practices act to more flexible and distinct state developed programs resulted in ". . . almost as many different varieties of Section 208 programs for silvicultural nonpoint source pollution as there are states. . ." with forest operations (2). In order to evaluate how these different programs might influence forest-water-protection operations, NCASI, in 1979, initiated a series of surveys of state silvicultural 208 programs (4,5,6). This special report is the fourth in this series.

A. Summary of Results from the 1979 Survey of State Programs

The initial survey in 1979 focused on: (a) the methods state agencies were using in order to determine the significance of forest operations as contributors to state water quality problems and results of those assessments; (b) the types of state programs being developed (voluntary or regulatory, educational or incentive); and (c) the techniques which would be used to evaluate the success or failure of the silvicultural NPS control programs (4). In 1978, 11 states or designated areas had identified silvicultural NPS pollution as a priority problem. These states and areas were: Alabama, Alaska, Louisiana, New Mexico, North Carolina, Oklahoma, Washington, and designated areas in Florida, Montana, and South Dakota (7). Only 11 out of 195 planning agencies had identified silvicultural nonpoint source pollution as a priority problem (8). The initial assessments of silvicultural activities conducted during the planning phase of the 208 program had generally found silviculture to be a minor contributor to water quality problems (4). By 1979, only Alaska, Idaho, Louisiana, Montana and 3 of its designated areas, New Mexico, and a designated area in South Dakota were still

identifying silviculture as a priority nonpoint source problem (9). Interestingly not identified as having priority silvicultural NPS problems were states like Oregon and Washington where existing regulatory programs were considered to be performing satisfactorily.

Of the 35 silvicultural nonpoint source control programs reviewed during the 1979 survey, 8 of the states had primarily regulatory programs using either forest practice acts (Alaska, California, Idaho, Oregon, and Washington) or some form of permitting (Maryland, Pennsylvania, and New Hampshire). Nonregulatory programs ranged from very general guideline programs to programs with detailed BMP recommendations.

Several approaches were proposed to provide the "hard outputs" EPA desired to demonstrate program success. These included technical reviews, questionnaire surveys, team assessments, models, compliance surveys, demonstration projects, water quality monitoring, state allocation of resources, and number of complaints, citations, or enforcement activities.

B. Summary of Results from the 1980 Survey of State Programs

In 1980 the survey focused on: (a) state program elements, (b) milestones for achieving program goals, and (c) problems impeding program success (5). All 50 states were contacted and reviewed even though some states did not identify silviculture as a problem. Various NPS control programs had or proposed the use of permits, licensing, model contracts, prior notification, plans, education, cost-sharing, and tax incentives. Overall, 25 programs used mainly voluntary compliance with BMP's, 6 had regulatory programs, 4 had voluntary silvicultural practices but regulations covering sediment or organic debris, 4 had programs controlling silvicultural NPS's primarily through agreement with federal agencies, and 11 states had little or no silvicultural NPS control program. Several national programs which provided cost-sharing for forestry and soil conservation objectives and programs providing technical assistance were being look to by the states to assist in BMP implementation. Program problems included lack of funds, lack of cause-and-effect data relating forest practices to water quality, difficulties of contacting small landowners, shortcomings of existing controls due to lack of enforcement or delays in reporting, and limitations of procedures to evaluate program success.

C. Summary of Results from the 1981 Survey of State Programs

In 1981, programs in twelve Southeast and Southcentral states in EPA Regions IV and VI were reviewed. This survey of mostly voluntary BMP programs found that ". . .the concept of BMP's for forest activities has been well assimilated into normal cooperative and extension services" (6). Some reductions in program elements had been necessitated by funding cuthacks but carry-over 208 funds were being used by several states to conduct training sessions and assessment projects. Most of the states were developing assessment studies to evaluate the success of their programs.

D. Objectives of a Survey in 1982 of State Programs

The 1982 survey of state silvicultural nonpoint source control programs provided NCASI the opportunity to update programs which should now be establish in a stable form; and the survey further provides insights into aspects of the 208 programs which could not be addressed previously. These new aspects include: (a) evaluations of program success, (b) the ability of state programs to continue without substantial financial incentives from the federal government, and (c) the benefits accrued by the silvicultural community as a result of effective NPS control programs.

II SUMMARY OF RESULTS FROM THE 1982 SURVEY OF STATE PROGRAMS

A. Mechanisms to Control Nonpoint Source Contributions from Silvicultural Activities

(1) Regulatory Programs - Seven states can now be characterized as having regulatory programs for silvicultural activities. Oregon, Washington, Idaho, and California base much of their nonpoint source (NPS) control programs on enforcement of forest-practice-act regulations. California, more than the other states, also depends on enforcement of water-quality standards. The Alaska Forest Resources and Practices Act has only "advisory" Best Management Practices (BMP's) but the prior notification aspects of the Act allow for water quality enforcement (10). Alaska has one of the most detailed water-quality standards regarding the introduction of sediment to streams.

Nevada, which was identified in 1980 as being quasi-regulatory (see below) because of a State Diffuse Source Law, has detailed rules under the Nevada Forest Practice Act (NFPA) which cover erosion control and stream-protection zones (11,12). The mandatory use of performance bonds to assure satisfactory compliance with the NFPA rules qualify this program as regulatory in nature. The Diffuse Source Law and Forest Practice Act are coordinated so that the same set of BMP's is used for both laws.

In New Hampshire, the "Intent to Cut" form required for harvesting operations has been amended so that the operator can sign an agreement to implement BMP's (13). The "Intent to Cut" form allows for monitoring of operations for water-quality compliance. Failure to sign the agreement to use BMP's and subsequent water quality problems will result in the operator being required to submit plans for future operations (14).

(2) Quasi-Regulatory Program - Four states were identified which do not have programs specifically covering silvicultural operations but have opted instead to emphasize existing regulations designed to control sediment or organic debris in streams. These state programs have been designated as quasi-regulatory because state regulations are not comprehensive for forest activities or

are mainly directed at non-silvicultural activities. Massachusetts, for example, has legislation requiring prior notification before harvesting and a Slash Law requiring debris be kept out of streams (15). In Pennsylvania, all activites causing soil disturbance are subject to regulation under a Clean Streams Law (16). In Maine, road construction BMP's and regulations limiting erosion and sedimentation are enforced, while the silvicultual program involves mainly educational efforts (17). Hawaii, which was identified in 1980 as having no program, has strict land-use planning. Under one land-use category, permits are issued when harvesting is approved. The permit specifies management conditions. Under another land-use category, sediment losses are controlled (18).

(3) Voluntary Programs - The majority of states (twenty-seven) have adopted voluntary-control programs for silviculture. Almost all of these programs involve educational aspects to inform operators about BMP's which have been developed for the state. Educational material used includes: pamphlets, instruction guides, TV public-service announcements, newsletters, posters, and slide/tape shows. Workshops, tail-gate lectures, and demonstration projects are also being used. EPA recently sponsored a workshop where state forest, state water-quality, and extension-service personnel from 6 states (Arkansas, California, Montana, New Hampshire, Oklahoma, and West Virginia) were assisted in developing individualized educational material to complement their 208 programs (19). Several states will be using National Training Package (NTP) material which is now becoming available. The NTP involves interactive slide/tape presentations which last about 2 days and can be adjusted to represent local rather than national water-quality issues (19). The NTP is being distributed to state foresters through the USDA Forest Service regions with technical help to be provided by USDA Forest Service hydrologists.

Another technique used by several states to encourage the use of BMP's is to integrate water-quality protection practices into normal forest-extension planning. Studies have shown that professional consulting, provided either by state foresters, industry foresters, or private consultants, results in a higher rate of BMP use and less water-quality problems (20-22). The Colorado program is noteworthy in its use of extension services to implement BMP's because about two thirds of the private lands subject to forest operations are covered by plans prepared by the Colorado State Forest Service (21). The ultimate extension of this approach is found in California where Registered Professional Foresters are required to certify all harvesting plans.

A third technique used in a few state programs involves incentives to promote the use of BMP's. The best developed cost-sharing program was Minnesota's where $100,000 was used annually, specifically to encourage the use of silvicultural BMP's (23). This program, which lasted 3 years, is now being reconsidered. Another state cost-sharing program is the Wisconsin Nonpoint Source Water Pollution Abatement Grant Program (24). However,

this cost-sharing program only provides funds for silvicultural NPS problems indirectly. Massachussetts provides tax benefits to some forest lands where plans using BMP's are developed (25). Kentucky is attempting to adopt cost-sharing or tax-relief incentives for timberland owners who implement BMP's (26). Several other states are attempting to use federal programs like the Forest Incentive Program (FIP) and Agricultural Conservation Program (ACP) so that these cost-sharing programs encourage BMP implementation.

A final technique for voluntary programs might be called a peer-pressure or peer-encouragement approach. For example, in Vermont, when a complaint about a forest operation is received and found to have some basis by a Water Resources Investigator from the state, then a committee from the Vermont Timber Truckers and Producers Association will visit the site and encourage the logger to resolve the problem with appropriate practices (27). Both Vermont environmental officials and industry representatives seem to find this approach very successful. West Virginia has also established a citizen-complaint-response program where a team of representatives from the Division of Forestry, Division of Water Resources, and the state forest industry organization, West Virginia Forests Inc., respond (28).

(4) Other Programs - In many Western states, USDA Forest Service and USDI Bureau of Land Management ownership constitute a large percentage of the commercial forest land and both these agencies have regulations protecting water quality. Therefore, agreements of understanding between the designated 208 agencies for the state and the major land management agencies to continue to improve water-quality-protection measures is the primary silvicultural NPS control mechanisms for Arizona and an important part of the program for other states (Alaska, California, New Mexico, Oregon, Washington, and Wyoming). For example, in Arizona the majority of forest operations occur on USDA Forest Service, Bureau of Indian Affairs, or State lands where water quality protection practices are already mandated (29). In South Dakota, where over 75 percent of the commercial-forest land is under USDA Forest Service jurisdiction, no formal agreements have yet been developed, but the Forest Service water protection program is considered as adequate (30).

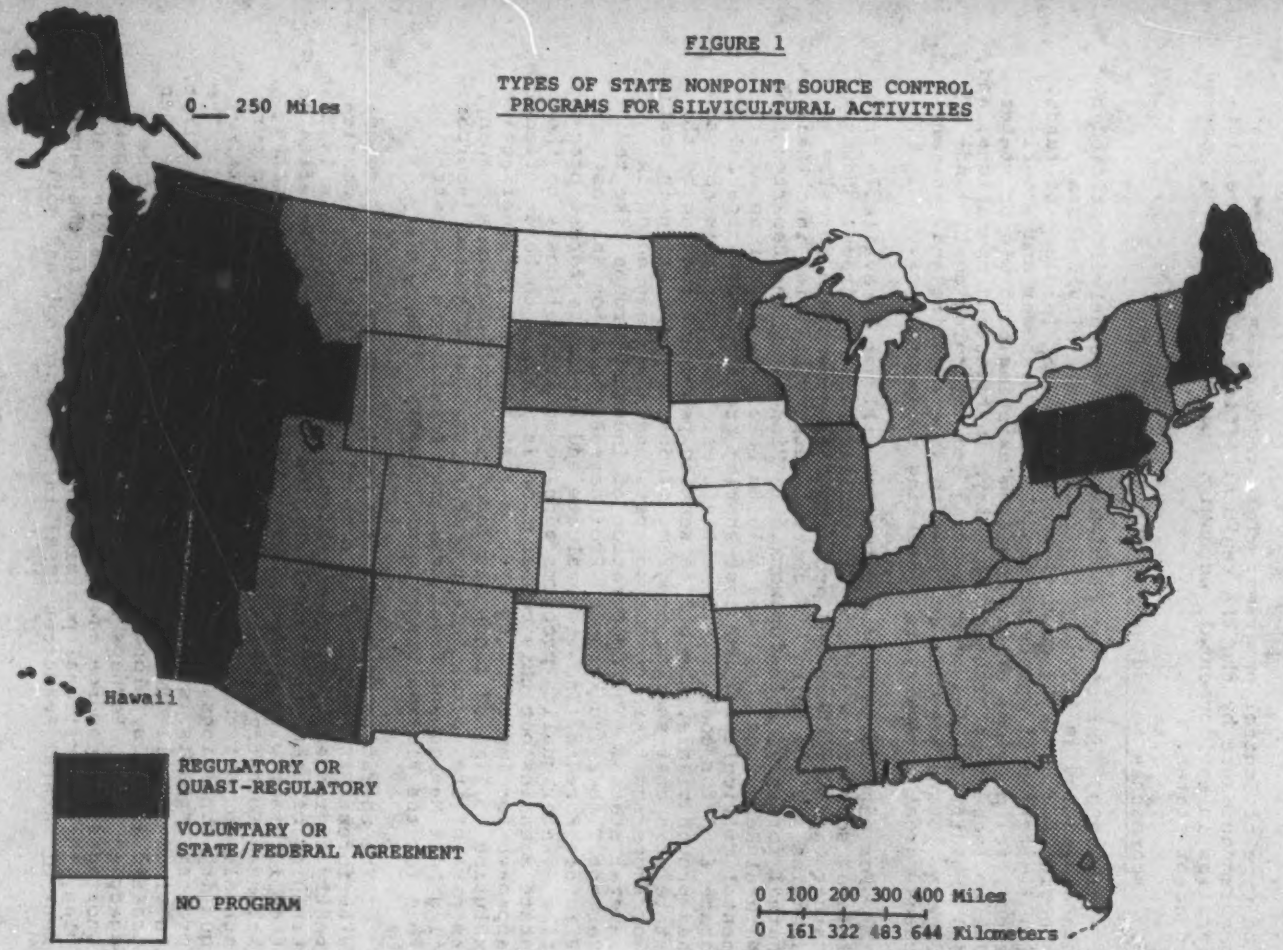
Ten other states do not have sufficient water-quality problems resulting from forest-management practices to warrant a silvicultural NPS control program. This may be because of: (a) lack of commercial-forest land, (b) adequate existing practices, or (c) land-water conditions resistant to adverse impacts.

Texas, for example, does have substantial forest resources; but because water-quality problems associated with forest practices have not been determined, the state has opted to address other water quality issues (31).

Program approaches for controlling NPS contributions from silvicultural operations are summarized for all states in Table 1 and Figure 1. Figure 1 shows that there is strong regionalism in

FIGURE 1

TYPES OF STATE NONPOINT SOURCE CONTROL PROGRAMS FOR SILVICULTURAL ACTIVITIES



the type of control programs. This regionalism resulted from program guidance by the EPA regional offices and also the similarities in environmental, economic, and social variables between adjacent states.

B. Approaches to Address Indentified Problems

In 1980, four of the problems most frequently identified by state agencies as impeding progress in their silvicultural nonpoint source (NPS) control programs were: (a) lack of funds, (b) limitation of agency personnel (both manpower and experience), (c) problems of implementing existing controls or statutes due to lack of enforcement or delays in reporting operations, and (d) the difficulties of contacting and informing small landowners. State agencies continue to show a desire and, in many cases, great ingenuity in addressing these problems.

For many state programs funding will not be available from federal sources to support silvicultural 208 programs. However, rather than let these 208 programs die, some state forestry agencies are absorbing NPS control responsibilities into their normal forestry extension work. In Minnesota, the Department of Natural Resources (DNR) was able to obtain funds for an experimental silvicultural BMP cost-sharing program from a special state fund for conservation activities. Now that this approach has proven viable, the DNR is seeking permanent funding by the state of a cost-sharing program. Industry cooperation in hosting workshops and training company personnel has been noted in several states. The cooperation of industry groups like the Vermont Timber Truckers and Producers Association and West Virginia Forests, Inc. to evaluate and arbitrate forest practice - water quality problems adds no additional costs to the state agencies but this cooperation is proving to be an effective approach for implementing BMP. A real standout, cost-effective solution to limited funds was found in Florida where a company, as part of its normal forest operations, built a road incorporating Best Management Practices; thus providing a demonstration road for the Florida Division of Forestry (32).

The upgrading of agency personnel technical skills to deal with forest NPS questions is probably the problem most consistently addressed by state agencies. The reason for this is that training of agency personnel results in multiplying benefits as they interact with operators. In Arkansas, for example, the Arkansas Forestry Commission has trained 100 of its field personnel, in part to allow these people to assess local water quality conditions associated with forest activities (33). The program emphasis is to train advisory/extension personnel first. In Virginia, all Division of Forestry field personnel have been trained in BMP's, along with 123 people from other resource agencies (34). Perhaps less well addressed have been manpower shortages in resource agencies. As outlined in the Minnesota 208 plan, three additional positions have been added to the Department of Natural Resources (DNR) in the hydrology and soil science

TABLE 1 SUMMARY OF STATEWIDE SILVICULTURAL NONPOINT SOURCE PROGRAMS

State	Control Approach	Program Assessment	Future Outlook
Alabama	Voluntary	Conducted, Planned	Status Quo
Alaska	Regulatory	None Planned	Status Quo
Arizona	Agreement	None Planned	Status Quo
Arkansas	Voluntary	Conducted, Planned	Status Quo
California	Regulatory	Conducted	Increasing
Colorado	Voluntary	Conducted	Status Quo
Connecticut	Voluntary	None Planned	Status Quo
Delaware	No Program	None Planned	Status Quo
Florida	Voluntary	Conducted, Planned	Status Quo
Georgia	Voluntary	Underway	Status Quo
Hawaii	Quasi-Reg.	None Planned	Status Quo
Idaho	Regulatory	None Planned	Status Quo
Illinois	Voluntary	None Planned	Status Quo
Indiana	No Program	None Planned	Status Quo
Iowa	No Program	None Planned	Status Quo
Kansas	No Program	None Planned	Status Quo
Kentucky	Voluntary	Planned	Increasing
Louisana	Voluntary	Planned	Increasing
Maine	Quasi-Reg.	Conducted	Increasing
Maryland	Voluntary	None Planned	Status Quo
Massachusetts	Quasi-Reg.	None Planned	Status Quo
Michigan	Voluntary	None Planned	Status Quo
Minnesota	Voluntary	Conducted	Uncertain
Mississippi	Voluntary	None Planned	Status Quo
Missouri	No Program	None Planned	Status Quo
Montana	Voluntary	None Planned	Decreasing
Nebraska	No Program	None Planned	Status Quo
Nevada	Regulatory	None Planned	Status Quo
New Hampshire	Regulatory	Conducted	Status Quo
New Jersey	Voluntary	None Planned	Decreasing
New Mexico	Voluntary	Conducted	Uncertain
New York	Voluntary	Underway	Status Quo
North Carolina	Voluntary	Conducted, Underway	Status Quo
North Dakota	No Program	None Planned	Status Quo
Ohio	No Program	None Planned	Status Quo
Oklahoma	Voluntary	Planned	Status Quo
Oregon	Regulatory	Conducted, Planned	Status Quo
Pennsylvania	Quasi-Reg.	None Planned	Status Quo
Rhode Island	No Program	None Planned	Status Quo
South Carolina	Voluntary	Conducted, Planned	Decreasing
South Dakota	Agreement	None Planned	Status Quo
Tennessee	Voluntary	None Planned	Status Quo
Texas	No Program	None Planned	Status Quo
Utah	Voluntary	Conducted	Status Quo
Vermont	Voluntary	None Planned	Status Quo
Virginia	Voluntary	None Planned	Decreasing
Washington	Regulatory	Conducted, Planned	Status Quo
West Virginia	Voluntary	Conducted, Planned	Status Quo
Wisconsin	Voluntary	Underway	Status Quo
Wyoming	Voluntary	None Planned	Status Quo

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disciplines (23). These are temporary appointments but the DNR is seeking permanent positions through an omnibus forest practices bill.

Some states found that they already had existing laws or control mechanism for NPS pollution but that lack of enforcement or delays in enforcement agencies receiving notification of activities were limiting the effectiveness of these controls. In order to address this problem, Pennsylvania recently placed enforcement responsibilities for the Clean Stream Law with the agency responsible for stream monitoring (35). In New Hampshire, District Foresters, who receive notification of "Intent to Cut", have made agreements with other agencies to monitor for operator compliance with water quality and slash-disposal laws (13). In Alaska, several agencies with simultaneous responsibilities for forest practices, water quality, and fish and wildlife protection are coordinating their monitoring efforts (10).

Contacting and educating numerous small landowners is a management problem which is common to many programs; especially those with a high proportion of non-industrial forest land. Surveys of forest operations have shown that these non-industrial operations are the most likely to have water quality problems (20,21). In order to help develop contacts, West Virginia has a voluntary registration of logging operations but this accounts for only about 18 percent of the known loggers and "independent loggers have participated less in the program" (28). The New Hampshire "Intent to Cut" permit provides a contact opportunity where a commitment to use BMP's is made (13). Effectively communicating with small landowners is equally as important as identifying them. In Florida, the Division of Forestry provides slide material and a general script to county foresters. County foresters can then present informal sessions to local forest landowners and operators (32). Because county foresters have developed a rapport with the landowners and operators by providing other beneficial advise in the past, presentation by these service agents seem to be better received than if a watershed "expert" presented the information. In Georgia, the Georgia Forestry Commission assigned a Water Quality Training Coordinator to each of its fourteen districts so that they could provide ". . .local expertise [and] foster on-site training . . ." (36) In Oklahoma an effective slide/tape program has been developed which uses a "folksy" approach to show landowners how old practices can be improved (19). The Maine Land Use Regulatory Commission provided a novel and sensible solution to one of its communication problems when it published regulations and a field manual on forest practices in French (37).

C. State Assessments of Program Accomplishments

In 1980, only the general accomplishments of the 208 program could be evaluated because most state programs had not been operating long enough for assessments to be made of their performance (5). By 1982 several programs had been operating for a

sufficient time that judgments about program success and even surveys or enforcement records to document progress were available.

The most important step in implementing a lasting NPS control program would be the integration of water quality concerns into normal forest operations. Comments by state agency personnel indicate that this important step is being accomplished for many programs. For example, Gene Cody, Natural Resources Planner for the Alabama Water Improvement Commission reports that ". . . there is an increased awareness by the forest industry of the need to protect water quality. There is an increased acceptance of site quality protection as an important part of forestry" (38). Reinforcing this evaluation, an Alabama Forestry Commission annual report on the silvicultural NPS program found that ". . .the voluntary approach is a great success. Over time major industries have changed their systems of management and site preparation measures" (39).

Agency personnel from other states report similar improvement in water-quality concerns and cooperation with control programs. For example, C. Joseph Doker, Environmental Specialist for the Florida Department of Environmental Regulations, found that "Division of Forestry foresters are now including water quality concerns in site planning. Private industry forest companies are doing likewise" (40). In Montana, Larry Brown, Hydrologist for the Water Quality Bureau reported that "in some areas, Forest Service, State, industry and private timberland owner relationships have improved" (41). Karen F. Ordemann, Environmental Planner with the Oklahoma Department of Pollution Control, noted that there has been "cooperation from the forest industry for. . . BMP development and use" (42). Dr. Robert Miller, Hydrologist, for the Oklahoma Forestry Division, has found that ". . .good management practice guidelines [have been] established and accepted by EPA, state agencies and industry" (43). Cordon Hiller, Operations Chief for the Pennsylvania Bureau of Soil and Water, reports "there has been a heightened awareness by forest operators of the need to protect against sediment loss . . ." (44) Claude Barden, Executive Assistant of the South Carolina State Commission of Forestry noted that "the forestry community has become more aware of the need to use BMP's" (45). Tim Blake of the Vermont Agency of Environment Conservation reported "one major development has been the request of loggers for assistance before problems actually occur" (46). In West Virginia, Robert Davis, Director of the State Water Control Board, found that forestry has made more progress in implementing a NPS control program than any other 208 activity (47).

Another measure of program success or failure is the number of enforcement actions and complaints concerning forest operation. The Alabama Forestry Commission annual report found ". . . no complaints involving water quality and forestry . . ." (39) In Pennsylvania there is a trend toward fewer violations of the Clean Streams Law by silvicultural operations (44). In

Vermont, Bruce Shields of the Vermont Timber Truckers and Producers Association reported that there has been a ". . . clear trend of fewer and fewer complaints" (48). Mr. Shields attributes this decrease in complaints to a greater awareness of potential water quality problems by forest operators and an increased willingness to seek aid from county-extension foresters or the Vermont Agency of Environmental Conservation. In New Jersey, George Pierson, Bureau Chief for the Bureau of Forestry, reports "few complaints against forest operations . . ." (49)

Several states have conducted field assessments of their programs. See Table 1. Most of these assessments have shown effective water protection and an increased awareness of BMP's associated with forest activities. In Alabama, four site-inspection surveys have been conducted since 1977 (50). These surveys have generally involved a random sampling of operations, inspection of the site by trained personnel, and a discussion with the persons responsible for the harvesting plan. The surveys are not completely comparable, but they tend to indicate an increased awareness of BMP's (51).

In Arkansas, 200 sites (3 years old or less) were inspected by district foresters who had recently been trained in BMP's. The survey showed an overall good job by operators and an apparent improvement in practices in recent years (33).

In Colorado, as part of the Agency Master Planning project, a county was intensively surveyed to compare erosion and sediment losses from harvested and undisturbed sites. The Modified Soil Loss Equation was used to estimate erosion rates. No statistical difference in erosion rates was found between the harvested and undisturbed sites; apparently demonstrating that Colorado State Forest Service assistance in developing silvicultural plans was effective in controlling sediment production (21).

In Florida, Division of Forestry County Foresters surveyed 120 sites which were identified by aerial sighting. Overall, 92 percent (110) of the sites were judged to be generally in good compliance with 208 guidelines. The highest rate of compliance failures (50 percent) was for private, non-industrial lands where there was no professional guidance. Some specific practice problems were found for stream crossings, stream management zone protection, site preparation, and especially road and skid trail erosion control. The Upper Panhandle Region of the state dominated the silvicultural nonpoint source problems (20).

In New Hampshire, the Division of Forests and Lands surveyed 68 operations and found erosion rates exceeded 3 tons/acre/year on about 10 percent of the operations when only roads and landings were considered. The 3 tons/acre/year value was considered to be the acceptable erosion limit. "When the entire harvested area was considered, the overall erosion rate was less than 1 ton/acre/ year in every case." (14)

In June, 1982, the Utah Division of State Lands and Forestry published the results of a statewide assessment of Silvicultural NPS pollution (22). The assessment involved a field survey of 55 timber sales. All sales were less than 10 years old and were selected on the basis that they had ". . . a potential to impact water quality." The number of sales visited on USDA Forest Service, State, and private lands were approximately proportional to the ratio of annual harvesting on these ownerships. Of 55 sales investigated, 16 exhibited "noticeable adverse water quality impacts" but only 5 ". . . impacted water quality to a degree that remedial action should be considered" (22). Roads and skid trails were found to be the primary problems with lack of adequate drainage, lack of maintenance, failure to close temporary roads, faulty culvert alignment in streams, and inadequate buffer strips being the most frequent problems. The report found that "harvesting practices on some private timber sales are cause for concern" (22). Two of the five sites experiencing adverse impacts requiring remedial action were on private lands compared to 9 private sites sampled out of 55 total sales (16 percent). The assessment also found that for ". . . timber sales on private land, the evidence suggests that when technical assistance is provided by either the State Forester or consulting foresters, adverse impacts on water quality are less significant and occur less frequently than when no technical assistance is provided" (22). The overall conclusion was that ". . .Utah is not experiencing significant adverse water quality impacts from silvicultural activities" (22).

Enforcement records and program assessments have shown that regulatory programs, based on forest practice acts, have been effective. Forest practice records for Oregon showed that over the past 5 years the compliance factor (number of operations not cited for violation/number of active operations) has remained approximately 98 percent (52). In a 1980 Department of Ecology assessment of the Washington Forest Practice Act, 122 operations involving 219 practices were evaluated for water quality impacts and compliance with regulations. The study found that "Water quality was well protected when forest operations were conducted in compliance with the regulations. Compliance was 80 percent when practices were compared with the requirements of the regulations. In the 20 percent of the instances where the regulations were not followed, water quality impacts were frequent" (53). As a result of this assessment, recommendations were made for changes in regulations and administration of the Washington Forest Practice Act and changes have been inacted.

Not all program assessments have been favorable. A survey by the Land Use Regulatory Commission (LURC) in 1980-1981 of active logging operations in Maine found that 52 percent (29) of 56 sites had erosion and/or sedimentation problems (54). In those 29 problem sites were 52 individual problems. All problems were associated with roads or skid trails. Substantial noncompliance with LURC standards for water control on roads and road-stream crossings was reported. Erosion/sedimentation problems were found to be greater for operations involving

contractors or stumpage permittees rather than the landowner. One conclusion of this study (resulting from a comparison of results from an earlier study) was that forest operations should be assessed while they are active in order to evaluate forest erosion/sedimentation problems (54).

In West Virginia, 101 logging sites were checked for the use of 16 BMP's. The field investigation found that 9 of the practices had usages of over 69 percent. Improvements were needed in: (a) retiring skid trails, (b) placing water bars and more cross-drainage structures on skid trails, (c) live-stream crossings, drainage, and maintenance on haul roads, and (d) drainage from landings (55). The results of this survey will act as a baseline with which to compare future study results. In New Mexico, a field evaluation survey found ". . . roads as the primary source of sediment and private timber sales . . .deficient in implementation of BMP's" (56).

Other states are developing program assessment studies (Louisiana, Kentucky, Oklahoma) or are in the process of surveying activities (Georgia, New York). In Georgia, an NPS Impact Assessment Study is measuring water quality and the biological health of streams coming from watersheds influenced by forest activities and other NPS activities in order to determine ". . . the extent and magnitude of the impact . . ." from these activities (57). Concurrent with this effort, the Georgia Forestry Commission has a one-year visual monitor project underway to assess ". . . site changes due to good or poor practices and vendor awareness of the overall [208] program before, during, and after the educational training effort by the Georgia Forestry Commission" (36). In New York, 100 logging operations are being randomly sampled to determine compliance with suggested BMP's (58).

Examples of program assessment forms used in field surveys of forest operations are provided in Appendix A. Forms include those used in West Virginia, Florida, Maine, and Utah. Forms used for surveys in Alabama, Oregon and Washington can be found in previous reports in this series (4,5).

Other than the Georgia NPS Impact Assessment Study, the only broad water-quality-monitoring program for silvicultural activities (except for USDA Forest Service projects) is being conducted by the Oklahoma Forestry Division (43). Over the past five years, monitoring of stream with adjacent forest operations has shown generally minor problems (42).

The status of state program assessments is summarized in Figure 2.

D. Prospects for Continued and Effective Program Activities

In 1980, some state administrators predicted that nonpoint source (NPS) control activities under Section 208 would cease unless federal monies continued to be provided to support state programs. While some monies have been made available to state

silvicultural NPS control programs, usually as carry-over 208 funds, most federal support has or will shortly be cut-off (59). Therefore, in 1982, agency personnel were asked to project the future of their programs.

None of the 10 states currently without a silvicultural NPS control program anticipates the development of such a program. The position of the Texas Department of Water Resources is that ". . . only upon identification and documentation of silviculturally related water quality problems will BMP's be developed and implemented" (31).

Of the 40 states with some kind of silvicultural NPS control program, 30 projected that their programs would continue as currently operated. States like Oregon and Washington consider their programs to be independent of 208 funding for operations because the forest practice acts are financially supported through the states. However, these programs will be cut back in their ability to conduct extensive studies on complex water-quality questions that might be used to indicate needed practice changes. Washington, for example, used $487,000 in 208 grants between 1977 and 1981 to conduct studies on forest roads, stream management zones, slope-stability, compliance with the Washington Forest Practice Act and other issues.

Other states like Oklahoma and Arkansas provide substantial financial support to their forest NPS protection programs so that continued effective programs can be anticipated. Many states will have to reduce their activity levels but because educational materials have been produced and BMP's have been developed and evaluated, the continuation of these programs with reduced funds is possible. Extension foresters should consider incorporating BMP considerations into their informational efforts for these states. For Vermont, where much of the program involves cooperation between the Vermont Timber Truckers and Producers Association and the Vermont Department of Environmental Conservation, the continuing costs of the program appear to be minimal while the program accomplishments are substantial.

In some states, including California and Kentucky, agency personnel are anticipating an adjustment period as programs are finalized and implemented. In other states (Georgia, New Hampshire, New York, North Carolina, and West Virginia) lead agencies will be making decisions about future program direction based on the results of ongoing (or recently completed) assessments. In Maine, as a result of the silvicultural NPS survey, the Land Use Regulatory Commission (LURC) will be increasing both the educational program and enforcement of LURC regulations (54). In Hawaii, forestry personnel may strengthen the silvicultural portion of the 208 plan with more specific recommendations during next 208 plan update (18). In Tennessee, a re-evaluation of potential NPS problems resulting from silvicultural activities has caused an increase in the educational program and the develoopent of recommended BMP's.

A future objective for the Wisconsin Department of Natural Resources is the development of better educational material (24). The Minnesota Department of Natural Resources is now attempting to reinstate a state-funded cost-sharing program to encourage the use of silvicultural BMP's (23). The DNR is also attempting to make permanent additions to its technical staff to assist in NPS control implementation. In New Mexico a shift of emphasis toward private-sector operations has been identified as a goal but funding for this activity is uncertain (56).

Some state-agency personnel have reported that programs will be downgraded because of lack of funds. In New Jersey, management emphasis is being shifted from private lands to state lands and the activity level for 208 is described a "maintenance" (49). In Virginia, agency personnel anticipate a decrease in state activities in silvicultural NPS control and identify the need for "industry and consultants" to continue the program (34). In Montana, staff working on an education program have been cut out but most of the educational material for a workshop program is apparently ready and at least part of an educational program will be accomplished (60).

Summarizing, it appears that the tools (educational material, BMP's) for programs have been developed and most states will be carrying out their NPS control responsibilities using either state funding, low-cost industry-state cooperative programs or by incorporating NPS control recommendations into normal forest planning and extension activities.

The relative outlook for the program activities in all states is summarized in Table 1 and Figure 3.

E. Estimates of Benefits and Costs of Silvicultural Nonpoint Source Control Programs

Substantial costs have been incurred and benefits accrued as a result of the Nation's silvicultural nonpoint source control programs. A problem in assessing program worth has been the lack of cost and benefit data for state programs. There remains an information gap on the costs and benefits of most NPS programs. For example, in response to the question "are there any estimates of the costs and/or benefits of the silvicultural NPS control programs for your state"; only a few state representatives had cost estimates and not one was able to provide any benefit estimates.

Costs involve: (a) the 208 program development costs of assessing the silvicultural problem and organizing an effective program, (b) implementation and continuing program costs, and (c) add-on-costs to operators to comply with guideline or mandatory Best Management Practices. Table 2 shows the program operation costs for some states. California, Washington, and Oregon are the most expensive with annual program costs of $3,400,000; $1,400,000; and $1,350,000 to cover management and enforcement of Forest Practice Acts. In Tennessee, the low program cost represents extra expenses necessary to implement an educational

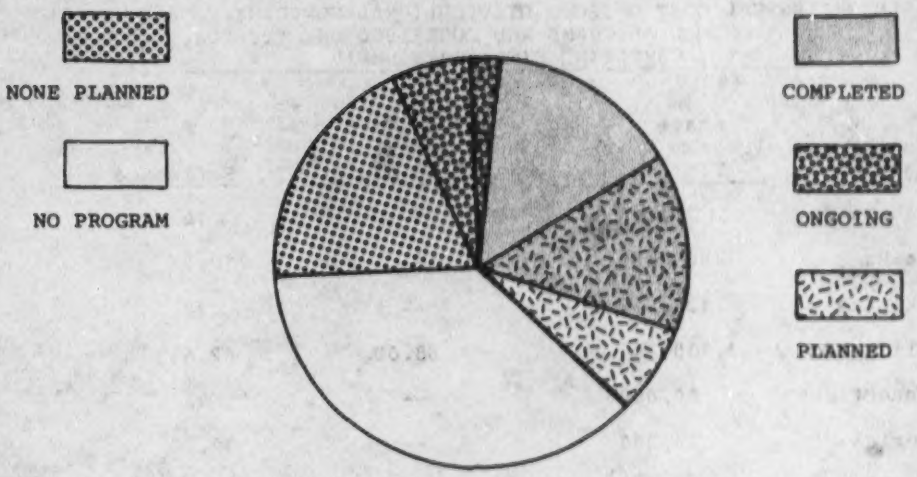

FIGURE 2

STATUS OF SILVICULTURAL NONPOINT
SOURCE CONTROL PROGRAM ASSESSMENTS

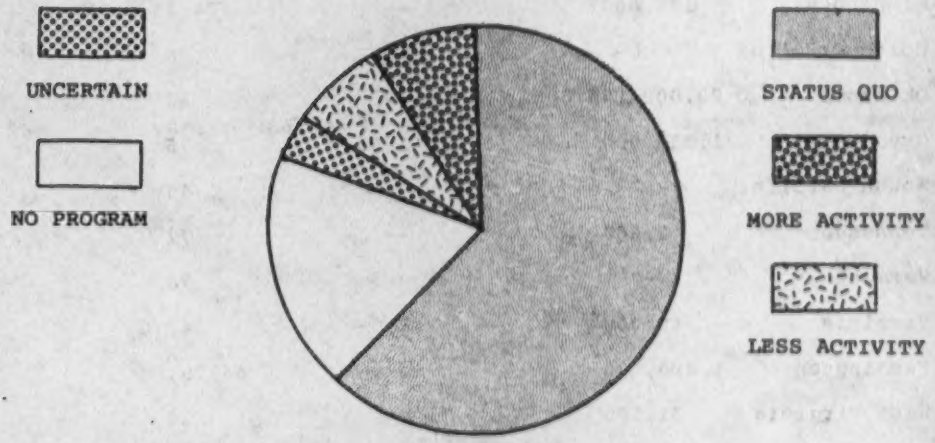

FIGURE 3

OUTLOOK FOR FUTURE ACTIVITY LEVELS OF
STATE SILVICULTURAL NONPOINT SOURCE CONTROL PROGRAMS

TABLE 2 ANNUAL COST OF SOME SILVICULTURAL NONPOINT SOURCE CONTROL PROGRAMS AND COST/1000 bd. ft. FOR COMPLYING WITH STATE BMP'S

State	State Program Cost In $	Add-On Cost to Operators $/1000 bd. ft.	Reference
Alabama	75,000	--	70
Alaska	500,000	--	10,71
Arkansas	120,000	--	33
California	3,900,000	55.00	62,63
Connecticut	80,000	--	72
Florida	25,000	--	32,70
Georgia	27,500[1]	--	70,73
Idaho	90,000	1.50	67
Louisiana	-0-	--	70
Minnesota	125,000[2]	--	74,75
North Carolina	-0-	--	70
Oklahoma	80,000-190,000[3]	--	43
Oregon	1,350,000	1.50	76
South Carolina	-0-	--	45
Tennessee	2,500	--	77
Vermont	-0-	--	78
Virginia	40,000[4]	--	34,70
Washington	1,400,000[5]	10.00	64,79,80
West Virginia	31,500	--	28

1. Program costs exceed contract by state with CPC for $27,500.
2. Assuming cost-sharing program reinstated.
3. Funding for program between 1977-1982.
4. Program funding projected to be zero for FY 1983.
5. $487,000 in 208 grant money from 1977-1981.

program encouraging the use of voluntary BMP's. NPS program personel for several states like Vermont and South Carolina anticipate no future funds for program operations but will continue programs using existing resources.

The add-on costs of complying with BMP's can be substantial when considered statewide, even though most BMP's are designed to be cost-effective. For a few states, estimates of add-on cost for compliance with Forest Practice Act Rules have been developed. In Oregon, the Association of Oregon Industries estimates add-on costs of $1.50 per thousand board feet (61). Estimates by the California Forest Protection Association of add-on costs for complying with the California Forest Practice Act are $55 per thousand board feet (62,63). Estimates by the University of Idaho are for $1.50 and $10.00 per thousand board feet for Idaho and Washington, repectively (64). Estimates of thousands of board feet harvested for California, Washington, Oregon and Idaho are 2,700,000; 6,500,000; 16,000,000; and 1,300,000 respectively (62,65-67). This would make the annual cost for operators to comply with forest practice rules, $148,000,000; $65,000,000; $24,000,000; and $2,000,000 respectively for California, Washington, Oregon and Idaho. From these figures it is evident that there are substantial costs in addition to the funds required to support enforcement programs.

Direct quantification of benefits resulting from the silvicultural 208 programs are not available. A major emphasis in the EPA strategy for FY-83 is to aid states in securing information to estimate benefits. Although these estimates are not currently available, there are several indirect measures of benefits to the forestry community resulting from NPS protection programs.

For Oregon and Washington, state forestry and water quality agencies have concluded that the Forest Practice Rules are so effective and enforceable that ". . . compliance with the Forest Practice Rules is considered compliance with water quality standards" (68). This approach does not hold the operator in "double jeopardy" for both complying with forest practice rules and meeting water-quality standards. Further, this policy allows state regulatory agencies to monitor practices and minimizes the amount of water-quality monitoring necessary. Because water quality in forest streams can fluctuate rapidly due to natural as well as man-made causes, the monitoring of operation practices is much less costly and time consuming; and further, by regulating with practice compliance, water-quality problems are averted rather than being addressed after an operation causes a problem.

For Idaho, which has forest practice regulations very similar to those in Oregon, language in the "Water Quality Standards and Wastewater Treatment Requirement" limits NPS water-quality restrictions ". . . so long as nonpoint source activity is being conducted in accordance with applicable rules, regulations, and best management practices . . ." (69). Petitions have recently been submitted to attempt to clarify the role of BMP's in protecting water quality.

In West Virginia, a new turbidity standard has been enacted which allows very little change in turbidity from either point or nonpoint sources (28). The standard calls for net loading increases of less than 10 nephlometric turbidity units (NTU) when background turbidity is below 50 NTU and net loading increases of less than 10 NTU plus 10 percent of background turbidity when background turbidity is above 50 NTU. An exemption to this standard is provided for silvicultural operations if they submit a sediment control plan using site-specific BMP's. The exemption is not allowed for streams classified as trout waters (28).

In Florida, a new stormwater runoff law, which requires a management plan to contain initial stormwater runoff, was not imposed on silvicultural operations (although this concept was initially considered) because of the effective, voluntary NPS program already operating in Florida (32,40).

Probably the best measure of benefits resulting from the NPS control programs is the generally favorable assessment of program accomplishment by state agencies and decreases in citizen complaints being received about forest practices. These favorable assessments and enforcement records indicate that silvicultural NPS programs are protecting water quality which is certainly the ultimate benefit and goal of the 208 program.

III CONCLUSIONS

During the four year period of 1979-1982 silvicultural nonpoint source (NPS) control activities, which were promoted by Section 208 of the Clean Water Act, have matured from plans developed from preliminary problem assessments to operating and remarkably successful programs.

Two key developments set the stage for the creation of effective silvicultural NPS control programs. The first was the genesis of the concept of Best Management Practices (BMP's). A BMP is "a practice, or combination of practices, that are determined by a state or designated areawide planning agency . . . to be the most effective, practicable (including technological, economic and institutional considerations) means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals" (2). Today, it is hard to conceive of effective programs not employing the principles embodied in the definition of BMP's. BMP's allowed decisions about appropriate practices to be based on local conditions; technological, economic, and institutional considerations; and perhaps most importantly shifted NPS control emphasis to the water-quality influencing activities themselves. By emphasizing management practices that reduce NPS loading, NPS problems are avoided rather than addressed defacto and both the ability of the operator to comply with regulations and the ability of the state to monitor compliance are enhanced.

The second key development came in 1977 when EPA guidelines departed from a uniform, regulatory approach for controlling silvicultural NPS's to a more flexible approach based on the unique institutional opportunities and environmental characteristics confronting each state. A recent report by the U.S. General Accounting Office, that summarized the status and needs of the Nation's environmental protection programs found that for many programs "the strategy to control environmental pollution has centered on national, uniform technology-based standards . . ." and that ". . . this strategy is not considered cost effective, efficient, or equitable and is being resisted by industry, states, and municipalities" (59). Because silvicultural NPS control programs departed from this uniform-regulations approach and instead capitalized on the existing informational, regulatory infrastructure of the forestry community, these NPS control programs have generally avoided the resistance reported for other environmental protection programs and have, to the contrary, been supported by both the states and the industry.

Given the concept of management practices specifically designed to meet unique conditions, the freedom to develop individualized approaches to promote the use of those practices, and the general support of the forestry community, it is perhaps not surprising that overall, silvicultural programs have been implemented successfully. For example, in West Virginia, the Director of the State Water Control Board has found that the forestry program has made more progress in implementing an NPS control program than any other 208 activity. The same assessment might well be made for many other states.

Despite these positive early developments, there continues to be sketicism about the effectiveness of NPS control programs, especially nonregulatory programs. For example, the U.S. General Accounting Office report cited above, concluded that while "the national water pollution control effort during the past decade has shown positive results . . ." " . . . the Nation is still a great distance away from meeting the goals established by the . . ." Federal Water Pollution Control Act Amendments of 1972. One reason cited for this lack of success is that " . . ..nonpoint pollution can have a negative impact on the billions of dollars that are being spent to abate point sources of pollution. But the extent of the nonpoint pollution problem is unknown, data on its effects is inadequate, solutions are not readily available, and funding has been sadly lacking."

Contrary to this perception of nonpoint source problems, assessments of state silvicultural programs have generally been favorable. Since 1979 several formal field assessments have been made of state silvicultural programs. Surveys in Alabama, Arkansas, Colorado, Florida, New Hampshire, Utah, Oregon and Washington have found either general compliance with suggested BMP's or the lack of widespread adverse water quality impacts from silvicultural activities. Most importantly, there have been some preliminary indications that forest operations may be changing in order to accommodate more practices that protect water quality.

Field assessments in Maine, West Virginia, and New Mexico found that there was not adequate implementation of BMP's and that new program emphasis was warranted. For all state assessments, the practices which were consistently found to cause most of the problems were: (a) water and erosion controls on roads, landings, and skid trails; (b) stream crossings; and (c) streamside management zones.

Part of these "implementation" problems of silvicultural NPS programs can be explained by continuing institutional program problems. For example, surveys in Colorado, Florida, New Hampshire, Utah, and West Virginia indicated that when professional planning was provided by state-extension agents or professional foresters, BMP's were more frequently utilized and water quality problems avoided. It is a general truism that states are finding industrial forest operations to be using suggested BMP's, while it is the small, nonindustrial private landowners and forest operators who are responsible for a high proportion of the silvicultural water-quality problems. An absolute solution to the problem of contacting and educating these small operators and landowners has not been found but several approaches are being tried. Intent-to-Cut permits, logger registrations, newsletter releases through the state forestry organization, and informal meetings with county extension foresters are a few of the methods being used to increase program/operator contact. Programs and educational material are also being tailored to the small landowner or operator so that they will be receptive to new practices. Finally, the incentive programs being developed or used are generally designed to encourage improved management by small landowners.

Funding constraints continue to plague many silvicultural NPS control programs but most agency personnel expressed a continuing commitment to maintain their NPS control programs. Albert Herndon, former Nonpoint Source Coordinator for EPA Region IV, reported that ". . . nonregulatory programs would continue to be used by some states even if Section 208 requirements were eliminated" (81). Other states, because their forest water quality programs were developed from state concerns, (California, Idaho, Oklahoma, Oregon, Washington) anticipate no or little program reductions due to decreased federal support. Of the forty states with some silvicultural program, thirty project that their NPS control activities will remain status quo, four states anticipate more active programs in the future (California, Kentucky, Louisiana, and Maine), four states project less active programs (Montana, New Jersey, South Carolina, and Virginia) and for two states future direction is uncertain (Idaho and New Mexico).

For those states where funding limitations are hampering program progress, recent amendments to the Clean Water Act (PL 97-117) hold out promise. Although 208 funding will not be available, Subsection 205 (j) provides that up to one percent of state construction grant funds can be used for water-quality-management planning. For states where the silvicultural program

is recognized as integral to the overall areawide water-quality-management program, funds may be made available from 205 (j). Any planning activity funded under 208 could potentially be supported by 205 (j). This means that silvicultural water protection activities will be competing for funds with other NPS and point source activities. A type of project which might be funded by 205 (j) funds would be an assessment of the effectiveness of the state silviculture NPS control program.

It is unfortunate that more specific information on the benefits and costs of silvicultural nonpoint source control programs is not available. This is the continuing information gap which needs to be addressed in the future. EPA has recognized this need by making estimate of benefits a high priority for FY-83 program. Survey information collected on program costs and add-on costs to operators for complying with BMP's show that the resources commited to water-quality protection are substantial. For the four western states with forest practice acts, the ratio of operator to state program costs is about 40 to 1.

In conclusion, the overall status of silvicultural control programs can be described as good. Many states have conducted formal field investigations and have found their programs to be working. Other states have made adjustments in response to problems identified inorder to improve the effectiveness of their programs. A number of other states are planning or have underway, program assessments. The majority of state agency personnel felt that NPS policies had been incorporated into their forest management activities and that the forest industry was also incorporating NPS concerns in their planning and operations. The effectiveness of the NPS program is probably best manifested in the regulatory exemptions accorded operations which conduct their activities using BMP's and the reductions in forest water quality complaints reported by several states. In future surveys it will be interesting to determine whether these apparent improvements are an artifact of the economic slowdown or represent true practice improvements. Some preliminary survey data does indicate that BMP's are being used more frequently in normal forest operations.

STATEMENT PRESENTED BEFORE THE SENATE COMMITTEE ON PUBLIC WORKS,

Subcommittee on Environmental Pollution

by Edwin H. Clark, II

Senior Associate

The Conservation Foundation
1717 Massachusetts Avenue, N.W.
Washington, D.C. 20036

April 7, 1983

My name is Edwin H. Clark, II, and I am pleased to be here to discuss some of the problems of nonpoint source pollution and its impact upon water quality in our streams, rivers, lakes, and reservoirs. I am currently a senior associate at The Conservation Foundation, a not-for-profit environmental policy research organization, where I am directing a comprehensive study of water resources issues in the United States, including problems of water quality. Before joining The Conservation Foundation, I worked at the Environmental Protection Agency and at the Council on Environmental Quality, where among other things, I was a senior associate responsible for water pollution control. My training is in engineering and economics, and I have worked off and on on water resources problems, including water pollution, for over 20 years.

My comments today will focus primarily on pollution from agricultural sources, not because this is necessarily the most serious source of non-point source pollution, but it is the problem that I have been studying over the past year. We have been intensively analyzing the various types of off-farm impacts caused by soil erosion, particularly from America's cropland.

I will begin by providing some statistics indicating the magnitude of the soil erosion problem and the problems that it is causing, will then review some of the problems caused by non-point source pollution from other sources, and finally, will briefly summarize what I see to be the state of our ability to cope with these problems, considering technology, knowledge, economic, and institutional factors that are involved.

19-871 O—83——36

The Problem of Erosion: An Example

One of the major sources of non-point source pollution is the rapid erosion occurring on America's lands. The Department of Agriculture's 1977 resource and conservation survey estimated that 6.4 billion tons of soil were eroded that year from non-federal lands, above and beyond normal geological erosion. How much is 6.4 billion tons? Well it is equivalent to about 30 tons of soil for each person in the United States, or to an average of more than 220 tons of erosion every second of the year. About 1.5 billion tons of this was wind erosion from cropland and rangeland in the Great Plains states. The rest was water erosion from cropland (39%), pastureland and rangeland (30%), and a variety of other sources including forestland, streambanks, gulleys (some of which are caused by agricultural erosion), roads, and construction sites.

Looking at agricultural erosion alone, on the average, for every one ton of corn raised by an Iowa farmer in 1977, five tons of soil were eroded by water in that state's cropland. For each pound of food consumed in the United States that year, over 22 pounds of soil were eroded from all agricultural lands by water. The average rate of water erosion of cropland alone was more than 89 tons per second.

Much of this erosion comes from a relatively small portion of the land. This is an important fact to remember when considering the need for erosion control measures. For instance, the Department of Agriculture has identified about 50 percent of total cropland area as being "erosion limited" meaning that it

has the potential for serious erosion problems. This 50 percent of the land is responsible for 74 percent of the total cropland erosion. Less than 3 percent of the land, eroding at a rate of more than 25 tons per acre per year, is producing almost a third of the total erosion (and even a higher proportion, almost 60 percent, of the "excess" erosion -- this is the erosion in excess of 5 tons per acre which is (somewhat arbitrarily) considered to be safe).

Although some of this erosion never reaches the nation's waterways, being re-deposited on the fields, in drainage ditches, and elsewhere along its trip from the field to the river, the majority of it eventually does, and once there can cause serious problems. In states such as Kansas and Illinois, it is one of their most serious water pollution problems. It can destroy valuable fish populations in streams and bays, increase the cost of water treatment for downstream users, make valuable recreational facilities essentially useless, increase significantly the flood damages along rivers, interfere with navigation, and silt up valuable storage space in lakes and reservoirs.

Other, perhaps more serious problems arise because erosion from cropland not only includes natural soil, but other contaminants such as fertilizers, pesticides and oxygen consuming organic materials. Pesticides can be toxic to fish, and potentially to humans. Fertilizers can be a source of potentially toxic nitrites in drinking water supplies, and stimulate algae growth, accelerating the eutrophication of lakes

and reservoirs. As algae die and decay, they, along with the plant residues and other organic materials carried into the stream, use up oxygen, often reducing the oxygen level so much that some fish species can no longer survive. These off-site pollution problems are exacerbated when farmers try to compensate for lost productivity by using more fertilizers, pesticides, and other inputs, without reducing the amount of erosion.

These types of problems are being experienced throughout the United States. Studies have found them severely affecting valuable estuaries from the Chesapeake to San Francisco and even Hawaii. They have been found to be significant problems in all of the Great Lakes as well as smaller lakes from Lake Tahoe in Nevada to Lake George in Florida. They have been highlighted as seriously affecting streams and rivers by states from Wisconsin to Texas, North Carolina to Washington. The specific problems may differ from one location to another, but they are being experienced everywhere.

This erosion, of course, is diminishing the productivity of our cropland. Plato described the effects of erosion in ancient Greece as follows: "What now remains compared to what then existed is like the skeleton of a sick man, all the fat and soft earth have been wasted away, and only the bare framework of the land being left." This description may be increasingly apt for the fields and the streams being destroyed by erosion in the United States.

The Conservation Foundation study is showing that this erosion is imposing substantial economic costs upon the nation,

and not only in terms of the lost productivity of the land from which it originates. The costs of increased flood damages, lost recreational opportunities, the depletion of expensive storage capacity, harbor dredging, and increased water treatment costs are well into the hundreds of millions of dollars a year. And these costs do not include the potentially more serious costs, the widespread destruction of our aquatic and riparian wildlife and the habitat they require to survive.

Other Sources

In focusing on agricultural erosion, I do not mean to suggest that this is the only -- or even in many cases the most serious -- source of non-point source pollution. Runoff from streets, lawns and parking lots in urban areas carries with it millions of tons of sediment as well as serious concentrations of bacteria, toxic contaminants such as lead and cadmium, fertilizers and pesticides from lawns, and other pollutants. In some areas of the country mining is a serious source both in terms of the erosion it causes, the many harmful pollutants associated with that erosion, and because many abandoned mines are a major source of acid pollution. Construction sites are often the most intense source of sediment pollution and frequently provide other pollutants as well.

Impact on Water Quality

The Clean Water Act has not yet brought about the significant improvements in water quality that we have experienced in the quality of the air in many of our cities. There are cases of impressive improvements -- salmon returning to

the Connecticut River, the Wilamette being clean, the incipient rebirth of Lake Erie -- but, across the nation, the quality of the water is getting slightly worse in about as many rivers as it is improving in. For most there has been no discernable trend. This is not to suggest that the Clean Water Act has not achieved significant accomplishments. Even maintaining the status quo is a significant accomplishment when there has been a 40 to 50 percent increase in potential pollution sources. And to some extent the lack of observable trends may reflect the necessary delay between the time regulations are passed, or monies expended for the construction of sewage treatment plants, and the time that these actions result in real reductions of pollution loads. But the lack of progress also reflects the fact that the nation has not yet made any significant progress in trying to deal with non-point sources of pollution.

According to one recent estimate, non-point sources are currently responsible for about three-fourths of the sediment in our rivers, over 90 percent of fecal and other coliform, 80 percent of the total nitrogen and 50 percent of the phosphorus that reach our waterways. They are the major source of pesticide pollution, and an important source of other toxic pollutants. For instance, over 90 percent of the lead reaching most of the Great Lakes comes from non-point sources. And they are a major, and in some places dominant source of BOD loadings.

In some cases the impact of these sources is more serious than even the total amount of pollution would indicate, because most of the non-point source pollution occurs in concentrated

surges in storm runoff. Although the increased water in the rivers associated with a storm provides a dilution effect, the concentration of pollutants, for instance of sediment, will be much higher following a storm than during normal times. And the slug of BOD running off a city's streets with a summer storm may cause a much more serious impact on oxygen levels in the receiving stream than the steady contribution of the municipal sewage plant.

What Can Be Done

Having established that non-point source pollution is a serious problem which has potentially significant impacts on water quality, the question is what can we do about it? Answering this question requires judgments about technology, knowledge, economics and institutions.

With respect to most sources, the technical problems are largely solved. For most agricultural lands, techniques for reducing soil erosion have proven their effectiveness over the past four decades.

Similarly effective erosion control techniques have been demonstrated for construction sites and for mines.

However, in some areas the technical answers are not so obvious. For instance, there is still a fair amount of uncertainty about the success of different measures for controlling non-point source pollution from urban areas. It is also true that some of these technical solutions may cause problems of their own. There is still some debate, for instance, on whether no-till agriculture decreases or increases the amount of

pesticides (particularly herbicides) carried into our streams.

Nevertheless, I think it is fair to conclude that in most cases, we have technical solutions to solve the problem.

The next question is do we have sufficient knowledge? For instance, do we know which techniques should be adopted at any particular location and where they should be applied in order to control water quality problems? Here again I conclude that in most cases we do have sufficient information. We do not need to initiate a new planning program. I have personally reviewed hundreds of documents produced by the Section 208 planning process. Many of these demonstrated that the relevant state or local agencies had substantial knowledge about the extent and sources of their water quality problems. The products of the Section 208 planning process, the information collected for the Section 305(b) water quality reports, the knowledge of the local soil conservation officials, and other such sources of information should suffice, I believe, to allow us to take action on these problems. I repeat, I do not think that we need to initiate another new major planning effort. We can, if we have the will, get right to work to correct the problems.

But having the will means having the money and the institutions to deal with these problems. And here is where the problems lie. Although some of the techniques are inexpensive (and can reduce a farmer's costs), others are too expensive for many farmers with their currently depressed incomes or cities with their depressed revenues to afford without outside help. The current economic conditions should certainly make one

hesitate before suggesting new or expanded pollution cleanup programs.

But, of course, the current economic conditions are not permanent. We already appear to be starting to climb out of the recession. This may, in fact, be the best time to initiate a non-point pollution control program, because its economic effects will not be experienced until the economy is once again fairly healthy. Nevertheless, any such program could cause significant economic hardship unless the government were willing to provide increased economic aid to those farmers and municipalities that do not have the financial resources to undertake the required expenditures.

I do not mean to suggest, in making these observations, that the costs of controlling non-point sources are too great. In many areas the costs of not controlling them are certainly greater. It is just that, at least at present, some of the responsible parties are suffering severe economic problems that financially prevent them from doing what needs to be done.

The final question is whether we have the appropriate institutions for achieving this cleanup. This is probably the most uncertain area of all. We have, over the past three decades, spent over 20 billion dollars on federal programs to reduce soil erosion. But we are still losing 2 billion tons of soil a year from our cropland. Our soil erosion control programs have depended primarily upon farmers to volunteer to adopt the erosion control measures. Millions have done so, and the requests for assistance always exceed the amount of funds

appropriated. But those farmers suffering the most serious erosion problems are not always the ones most anxious to volunteer. If we are to adequately address the problem of non-point source pollution, I believe that we will probably have to go beyond depending only on volunteers. There will need to be measures that can require more reticient land owners to take action as well.

The same is true for urban areas. We have yet to achieve the goals we established for cleaning up municipal sewage. To some extent this is because the federal government has not been able to provide the matching funds that the municipalities need. But there has also been a reluctance on the part of some municipalities to deal with the problem -- after all, it doesn't affect them, only the cities downstream. And, quite understandably, the state and federal governments have been hesitant to force the reluctant cities to take action. We could only expect these problems to become more serious if we were to attempt also to control non-point source pollution from urban areas.

There are, of course, already a number of programs which can assist in this process. We should depend primarily upon the soil and water conservation programs implemented through the Department of Agriculture for controlling non-point source pollution from agricultural lands. Similarly, the Departments of Interior, Transportation, and Housing and Urban Development have programs which can help control non-point source pollution from mines, urbanized areas, and construction sites. And other programs such as the Pesticide Control Law, the Municipal Waste

Treatment Grants Program, and the Toxic Substances Control Act can help as well. Any non-point source pollution control program should make use of all these existing laws and programs to the maximum extent possible.

And such a program ought to place the major responsibility for its implementation at the state or local level. Controlling non-point source pollution requires specific knowledge about specific problems, and this sort of insight cannot be gained by bureaucrats sitting in Washington or in EPA's regional offices. But state and local authorities will require the strong support of the federal government, including, I believe, additional legislation which will help (and in some cases even force) them to do what needs to be done.

This concludes my prepared statement. I would be happy to attempt to answer any questions you might have.

TESTIMONY OF
MERILYN B. REEVES
NATURAL RESOURCES COORDINATOR
LEAGUE OF WOMEN VOTERS OF THE UNITED STATES
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
OF THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
APRIL 7, 1983

I am Merilyn B. Reeves, Natural Resources Coordinator of the League of Women Voters of the United States. I am here today representing League members in more than 1300 communities in every state in the Union, the District of Columbia, the Virgin Islands and Puerto Rico. Our members have a long history of active involvement in environmental work at the local, state and national levels. We worked hard for passage of the Federal Water Pollution Control Act Amendments in 1972 and the Clean Water Act in 1977. Leagues all over the country have continued to work hard to educate citizens on the issues involved and to press for full implementation of the Clean Water Act.

The Clean Water Act has been a tremendous success and stands as a monument to Congressional leadership in the environmental field. We urge you to continue that leadership by maintaining the integrity of the Act. Numerous challenges to that basic integrity -- from attacks on technology-based standards and the pretreatment program to attempts to scuttle the goal of fishable, swimmable waters by weakening water quality standards -- will be

faced by this committee.

The League's views on many of these challenges are set out later in my statement. I would like to concentrate now, though, on those measures that need to be taken to improve the Clean Water Act.

After implementation of Best Available Technology (BAT) standards, implementation of pretreatment standards, and the construction and operation of a large number of municipal treatment systems, the goals of the Clean Water Act will not have been achieved. This should come as no surprise. When the Act was passed in 1972, Congress knew that pollution from nonpoint sources would have to be controlled. And Congress knew that controls beyond the basic technology standards would be needed to control toxic pollutants. Now Congress must develop enforceable programs to control nonpoint sources and to gain additional controls on toxics. In this round of the Clean Water Act's reauthorization, the Act must not only be protected, it must be strengthened.

So, I am happy to be here today to discuss a crucial problem in the nation's clean water program -- pollution from nonpoint sources.

Nonpoint Source Pollution

League leaders from across the country report that nonpoint pollution control efforts are at a standstill. Although state and local governments have identified the seriousness of uncontrolled runoff and have identified best management practices to control nonpoint source pollution, they

lack the stimulus of federal leadership that a Congressional mandate would provide.

Through past initiatives mandated by Congress, such as the Section 208 program, the National Urban Runoff Program, and the Chesapeake Bay and Great Lakes regional research and demonstration projects, states developed a data base and identified workable, practicable control measures.

Now, Congress must state that implementation of nonpoint pollution control measures is vital, not only for protection of water quality, but also for prevention of soil erosion and cleanup of dirty city streets. At this time, there should be no doubt that control of nonpoint pollution is a cost effective investment in the future.

Nonpoint source problems vary greatly from region to region. Farming practices that result in soil erosion vary greatly from one area to another. Construction practices and urban runoff patterns vary as well. Clearly states and local units of government are in the best position to assess their problems and develop best management practices for control. However, experience over the last 10 years has shown that state or local governments cannot do it alone and that nonpoint pollution problems are too severe to continue uncontrolled. It is time for the federal government to step in:

-- to ensure that all state and local governments address their most serious pollution problems and have access to the tools they need for success;

-- to ensure that cleanup efforts by one state or locality are not thwarted by poor conservation practices upstream;

-- to promote better coordination among the numerous federal agencies

and state and local entities dealing with nonpoint pollution and related problems in order to maximize benefits;

-- to build on the federal investment made and experience gained in the 208 program.

We know what needs to be done. What is needed are effective programs and adequate funding.

I would like to share with you some of the statements made by League leaders on nonpoint pollution.

> We believe Clear Lake, which empties into Galveston Bay, suffers nonpoint source problems and that these have grown during the years that point source pollution has decreased due to strict state regulations. The 208 study in this area admitted that nonpoint source was a serious concern and developed recommendations to manage these pollutants. As far as we know, however, the management plan is largely unimplemented. There are many entities involved, and nonpoint source is a red flag term in an area being developed rapidly. We think there may be a need for the Clean Water Act to motivate implementation on nonpoint source management plans.
>
> - LWV of the Bay Area (Galveston, TX)

> The agricultural areas of Maine have, therefore, lost approximately two feet of topsoil over the last 25 years. Essentially there is no topsoil left. They are now farming the unfertile subsoils and in order to sustain marketable yields (these have steadily declined) they must use continually larger amounts of pesticides and fertilizers.

These chemicals are then eroded increasingly, along with the soil, to the rivers and groundwaters because subsoils don't hold nutrients as well as organic topsoils.

- LWV of Maine

A mostly unpublicized nonpoint source is the use of herbicides by city, county and state along roadsides and by TVA and the Electric Power Board under power lines. They are also used in agriculture and forestry. The Tennessee Water Pollution Act, Section 342-G, exempts agricultural and forestry activites from its provisions.

- LWV of Chattanooga

Nonpoint source pollution is the major threat to water quality in Idaho and has been the reason for downgrading state Water Quality Standards. Now almost no protection is left against nonpoint pollution.

- LWV of Idaho

The state of Montana does have significant nonpoint source pollution -- in the form of sediment, salts and streamflow depletion. This pollution, primarily from agriculture, is far more prevalent in Montana than pollution from municipal and industrial discharges. The early 208 planning helped to identify several sources and provided grants to help correct the problems. However, this program was never adequately funded and with a very tight state budget and lack of federal funds, future efforts will be extremely limited.

- LWV of Montana

I would like to highlight some of the problems of nonpoint source pollution. The General Accounting Office has estimated more than half of the pollutants

entering the nation's waters come from agricultural, silvacultural, urban, mining and construction runoff; from saltwater intrusion and subsurface excavations (such as septic tanks); and from activities that cause modification of water flow (dam building, diversion projects, etc.) -- in short from nonpoint sources. Some of the pollutants, such as those contained in urban and pesticide runoff may be highly toxic and can cause severe damage to ecosystems even in limited quantities.

The seriousness of the problems caused by nonpoint source pollution is becoming more and more apparent as the nation progresses in the control of pollution from point sources. In Environmental Outlook 1980, EPA's Office of Research and Development estimated that the sediment load entering water bodies from nonpoint sources was 360 times higher than that from treated point sources; BOD - 5 times higher than treated point sources, nitrogen - 4 times higher, and fecal coliform - 50 times higher.

Specific problems vary from region to region. Some type of nonpoint pollution affects most areas of the country. A 1977 EPA Report to Congress stressed that of the 246 river basins, 68% suffered from the effects of agricultural runoff; 52% from urban runoff; 30% from mining; and 15% from forestry runoff. In a report released in July 1982 GAO listed nonpoint source pollution along with acid rain, groundwater contamination and ocean dumping as major unresolved issues that must be addressed if key environmental goals are to be met, if progress in environmental cleanup is to be maintained, and if the benefits from the nation's investment in environmental cleanup are to be maximized. I would like to note parenthetically that nonpoint source

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contribution to water pollution does not argue for relaxing point source control. Instead it argues for strict controls on all sources.

In 1972, with passage of the Federal Pollution Control Act Amendments, Congress acknowledged the growing nonpoint pollution problems and directed states under Section 208 to draw up plans identifying these sources of pollution and identifying available control measures. Important work was done under 208 in developing data on nonpoint problems and identifying best management practices to curb nonpoint source problems. But, as we all know, most of these efforts came to a sudden halt at the end of the planning stage since there was no federal mandate for implementation. Since the demise of 208, some states and localities have begun programs to control the most serious nonpoint problems, but it has been a struggle in the absence of both federal leadership and federal funding. We urge this committee to re-establish federal leadership in this area to shore up existing state and local efforts and encourage additional states to tackle their most damaging nonpoint problems.

I would like to address briefly now the two areas considered to be the greatest contributors to nonpoint source pollution, based on information in 208 plans, state water quality reports and other information such as the GAO report -- urban runoff and agricultural runoff.

Urban Runoff

The runoff from our city streets contains many harmful pollutants. EPA's National Urban Runoff Program sampled pollutants in test urban centers and

found lead, zinc, copper, cadmium, asbestos, selenium, nickel, chromium, arsenic, oil and paint. Examples of the problem abound:

- o Large percentages of the heavy metal occurring in New York Harbor -- such as 69 percent of all zinc -- come from runoff from New York City streets. (The Comptroller General's Report to Congress, Cleaning up the Environment: Progress Achieved But Major Issues Remain, July 1982.)
- o In Dallas, rainwater runoff, particularly in spring and fall, contributes three times as much Biological Oxygen Demand (BOD) as effluent from sewage treatment plants(Comptroller General's Report).
- o Nationally, urban runoff contributes more suspended solids to our waterways than all the combined sewer overflow plus effluent from secondary and tertiary sewage treatment plants (Director of Arkansas Department of Pollution Control and Ecology).
- o About one-half of the 127 priority pollutants listed by EPA are found in samplings of urban runoff at one time or another (NURP).
- o Conventional pollutants found in the urban runoff in every part of the nation include suspended solids, nutrients, coliform bacteria and oxygen demanding materials (NURP).
- o EPA data show that urban runoff from 22 test sites contributes an an annual median loading of 380 kilos per hectare of chemical oxygen-demanding material plus 62 kilos per hectare of biological oxygen-demanding mateiral and 630 kilos per hectare of suspended solids (NURP).

City debris and pollutant contaminated dirt washes into streams, but there is another kind of dirt that is also a component of urban runoff: sediment

from construction. Each time another highway is constructed or a shopping center is built, more sediment is washed into our waterways. According to Nations Water Resources 1975 - 2000 by the U.S. Water Resources Council, small construction sites in eastern urban areas increase the soil wash into waterways by 5,000 times. Studies in Maryland and Virginia show that urban construction projects add 40-50 tons of sediment per acre to runoff. White Flint in Maryland was constructed with all the proper safeguards to prevent sedimentation of Rock Creek. This sedimentation trapped 2,600 tons of sediment from only one shopping mall!

These sources of urban pollution can be controlled. Street cleaning with vacuum sweepers or other means of picking up debris rather than sweeping it into sewers will keep many pollutants out of the waterways. More frequent and improved trash pick-up service is another comparatively low cost practice. Sediment control ordinances for construction sites will keep tons of silt out of streambeds. Preservation of natural drainage patterns and sedimentation and storage basins can help address these problems.

Agricultural Runoff

Estimates by EPA indicate that the largest nonpoint pollution problem by volume is sediment entering streams, rivers, and lakes: one-half of that sediment comes from soil erosion on cropland. This sediment transports other pollutants such as pesticides, herbicides, excess nutrients, toxic inorganics, viruses and pathogens. It covers feeding and spawning areas and it raises stream beds, causing flood water to reach higher levels.

Soil erosion and its attendant water quality problems are most acute on marginal cropland where erosion rates are highest and where larger quantities of fertilizers and pesticides may be required to make the land productive. Estimates vary, but according to the Department of Agriculture, 54% of all soil erosion takes place on 10% of the cropland. Most of this cropland is marginal cropland.

Nutrient runoff is a large problem as nitrogen and phosphorus applied to the land ends up in water bodies. Pesticide runoff can cause severe problems in receiving waters even in small quantities.

In addition, return flows from irrigation causes special problems with increased salinity or dissolved solids. In western states, where irrigation is extensive, 90 to 100 million tons of salt enter surface waters each year according to the Department of Agriculture. At high levels, salinity can impair future uses of water for irrigation or for drinking water.

There are methods available to control agricultural runoff. Conservation tillage, terracing, crop rotation, integrated pest management, sediment dams, and reduced waste in irrigation systems all are available means. Some would be appropriate in certain areas, others would be appropriate in other areas.

Although the Department of Agriculture does have numerous cost-sharing programs to promote conservation, funding for these programs is low considering

the magnitude of the problem. And the resources for these programs have been allocated equally throughout the country rather than targeted to those lands with the worst problems -- primarily the marginal lands mentioned earlier. We applaud recent efforts of the Soil Conservation Service to rectify these problems. However, even if the benefits of existing programs are maximized, they will not be able to go far enough.

We realize that farmers today face difficult economic conditions. We are not proposing new measures that would add unduly to their burdens. But we do think that new steps should be taken to ensure the future productivity of farmland and prevent further degradation of water quality -- two goals that in the long run will perhaps benefit farmers as much as or more than any other segment of the population. One such step is "cross compliance," or making good soil conservation practices a prerequisite for receiving federal subsidies. This concept is winning increased support among farmers. The federal government should stop giving mixed signals to farmers, encouraging conservation on the one hand and rewarding poor erosion control practices on the other through loans, price supports and disaster relief.

Controlling Nonpoint Pollution

We believe the Congress should amend the Clean Water Act to create a program to set and implement best management practices (BMPs) to control nonpoint pollution. Development and implementation of BMPs should take place at the state and local levels under federal oversight. The program should be targeted on water bodies that do not attain adequate water quality.

We should build on the experience developed at the state and local levels through previous nonpoint programs, such as the Section 208 program. BMPs should be set and implemented in two phases, the first being less stringent than the second. In the first phase, BMPs would not be rigorous controls, they would be based on readily achieved and well-known practices. They would probably not really be the best "best management practices." In the second phase, the state or local unit delegated responsibility by the state, would set BMPs at more stringent levels as necessary to attain the desired water quality. A planning process would guide the second phase. Obviously we are not talking about uniform BMPs nationwide.

In both phases, the state would identify categories (mining, urban runoff, agricultural runoff, etc.) and subcategories (size of facility, topography, etc.) for setting BMPs, with guidance from the federal government. Where a particular category or subcategory does not contribute significantly to the problem, no BMP would be set. Federal guidance and oversight will be important and information sharing will be vital to the success of the program.

Upon federal review, the state system would take effect. Any source not complying with an applicable BMP would be prohibited from receiving federal funds or permits. This "cross compliance" is essential to the overall program's effectiveness. States that fail to develop a program would be subject to federal penalty.

We believe a system following these broad outlines would build on past experiences and would be a workable and effective program to control nonpoint source pollution.

Other Issues

I would like to briefly outline for the record the League's views on a range of other Clean Water Act issues.

We believe that mandatory national categorical pretreatment standards are necessary to protect water quality, prevent costly damage to municipal sewage treatment works, and prevent contamination of municipal sludge. Congress should keep the pretreatment program in place and should reject proposals for variances that would weaken protection against discharges of toxic effluents or would put the costs of control on municipalities rather than on the generators of toxic wastes. Pollution should be controlled at its source, not later down the pipe. The pretreatment program is not yet fully in place. It should be given a chance to work before it is Congressionally modified.

The requirement for the use of best available technology (BAT) for industrial sources discharging directly into waters of the United States is also a key element of the Clean Water Act. Because of delays at EPA in promulgating BAT standards, deadline extensions are necessary. We believe that deadlines should be set that require compliance within three years. This is sufficient time to allow compliance. Because uniform, technology-based standards are at the heart of the Clean Water Act, we are opposed to provided EPA authority to grant individual variances from BAT standards.

Section 404 of the Act helps prevent wetlands from destruction. Numerous attempts over the years have been made to cut back the program. As this Committee well knows, wetlands serve as groundwater recharge areas, flood buffer zones, fish spawning and wildlife habitat areas, and water cleansing areas. We believe the Section 404 program should not be curtailed. Rather,

the program should be strengthened to make clear that its protective provisions apply to clearing and draining of wetlands and to give citizens the right to go to court to enforce the law.

EPA has proposed to retreat from the nation's commitment to attaining fishable, swimmable water quality by allowing downgrading of water quality standards. We oppose these proposed regulations and urge Congress to prevent their taking effect.

In addition to the nonpoint source controls I discussed earlier, there are three other areas where Congress should take affirmative action.

Even after industries meet BAT standards, stream segments around a number of major industrialized sites will still suffer serious toxic water pollution problems. The Clean Water Act needs to be amended to set a time schedule for action in identifying these toxic hotspots and in taking the necessary steps to control toxic effluents.

Estuaries are among our most productive natural resources, but many of them are severely stressed. Polluted shellfish beds have been closed and striped bass and other fish populations are in serious decline. These problems are not now addressed under the law. States lack the resources, incentives, and management tools to solve these problems alone. The Clean Water Act should be amended to recognize the unique characteristics of estuaries and to earmark funds for use at both the national and state levels to protect these fragile resources.

Finally, citizens should be allowed to sue for damages caused by water pollution. Presently, someone who is harmed by water pollution has no legal recourse but to seek enforcement of the law to eliminate the cause of the damages. But that person cannot recover damages to compensate for injuries, whether they are human health problems or loss of livestock or other types of harm. The Act should be amended to make it clear that citizens who are injured by water pollution may sue for damages.

STATEMENT OF THE

WESTERN REGIONAL COUNCIL

BEFORE THE SUBCOMMITTEE ON
ENVIRONMENTAL POLLUTION
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

HEARING ON
S.431 and S.432
AMENDMENTS AND REAUTHORIZATION
OF THE CLEAN WATER ACT (PL 95-217)

WASHINGTON, D.C.

April 7, 1983

Mr. Chairman and Members of the Subcommittee:

The Western Regional Council appreciates the opportunity to comment on specific amendments to the Clean Water Act contained in S.431 and S.432 and a number of amendments the WRC proposes which are not contained in these bills. I am David Delcour, Vice President of AMAX, Inc. I am appearing here today as Chairman of the Western Regional Council's Clean Water ad hoc Committee.

The Western Regional Council was organized to provide a unified voice for the business community of the Intermountain West. Its membership is composed of chief executive officers of corporations representing a number of major industries in the Intermountain West. The WRC works to establish balanced policies which consider the benefits of both economic development and environmental preservation in the West.

Water is a critical commodity in the West; therefore, quantitative and qualitative water management is of significant importance to the Western Regional Council. The Clean Water Act is now before the Congress for reauthorization and the Western Regional Council supports the basic concepts of that Act. Although the Council supports the basic concepts of the Clean Water Act, the Council asserts that a nationwide "across the board" application of the Act results in certain provisions having a significant adverse impact on the West due to the unique features of western water. The intent of the Council's recommendations is, therefore, not to change the basic concepts of the Act, but to provide the flexibility in implementation which is required for sound water management in the West. The Council's testimony will address five areas of the Act which, in the WRC's opinion are in need of amendment.

POINT SOURCE DEFINITION

One of the chief purposes of the Clean Water Act is to regulate the discharge of harmful pollutants from industrial processes. However, the Act only regulates discharges from "point sources," which are generally defined as "discrete conveyances" such as pipes (Sec. 502(14)). The Act does not, for example, authorize EPA to regulate diffuse storm runoff or snowmelt running across an industrial facility. However, EPA has interpreted the term "point source" to include devices which gather, collect or otherwise divert stormwater runoff or snowmelt. As a consequence, mining and other industrial facilities that would have no obliga-

tion to treat diffuse stormwater runoff or snowmelt, but have constructed diversion structures to prevent diffuse storm runoff or snowmelt from contacting process areas and contacting toxic materials, are often required to obtain an NPDES permit requiring them to treat these waters. However, the Office of Surface Mining does require coal mines to collect stormwater and these devices are classified as point sources regulated under the Clean Water Act. The 1977 amendments to the Clean Water Act require best management practices to control discharges of toxic materials. If stormwater device discharges are toxic, they would also be covered under this provision of the Act.

Impact on the West: The amounts of stormwater runoff and snowmelt in the mountainous areas surrounding western mining facilities are very large and the cost to treat this runoff is often prohibitive. Much of this stormwater runoff is not toxic and to require treatment of water not contaminated by the industry seems punitive.

Recommendation: Devices that merely divert or gather and collect storm runoff and snowmelt without adding to their contamination should not be considered "point sources" subject to EPA regulation. Including such devices in the definition of "point source" penalizes many companies for installing devices that serve to prevent or minimize pollution and were not required to be installed.

Amend Section 502(14) of the Act, 33 U.S.C. 1362(14), to read as follows:

> The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which pollutants are or may be discharged. The term does not include return flows from irrigated agriculture or storm water runoff. As used herein, "stormwater runoff" means discharges from conveyances or systems of conveyances (including pipes, conduits, ditches, and channels) primarily used for collecting and conveying precipitation runoff and which are not contaminated with process wastes, raw materials, toxic pollutants in excess of toxic pollutant effluent standards or prohibitions, hazardous substances in reportable quantities, or oil and grease.

This proposed language is generally consistent with the U.S. Environmental Protection Agency's November 18, 1982, regulatory proposal.

Three brief examples of the problem of stormwater runoff devices being classified as point sources are as follows:

1. Hecla Mining Company's Lucky Friday No. 3 Tailings Impoundment in Mullan, Idaho has a diversion which parallels Interstate 90. It was constructed to prevent excessive water impoundment during periods of high runoff. If this is misconstrued as a point source discharge, a separate NPDES permit would be required.

2. At Hecla Mining Company's Republic Mine, Republic, Washington, the Department of Ecology is requiring a diversionary structure to be constructed around the Aspen Tailing Impoundment to prevent contamination of stormwater runoff. Once again, this discharge may require a permit if this section of the Act is not amended.

3. Hecla Mining Company's Sherman Mine, Leadville, Colorado, currently diverts spring runoff water around surface facilities in a 36" galvanized pipe. This water is discharged into a gulch below the mine site. The Colorado Department of Health, having jurisdiction over the NPDES program, requires that an NPDES permit be obtained for this discharge.

ZERO DISCHARGE GOAL

It is the goal of the Act that the discharge of pollutants into navigable waters be eliminated by 1985 (also known as zero discharge goal). The legislative history reveals that Congress never intended the zero discharge goal to be legally binding, but only a "target". The term pollutant is broadly defined under the act to include all waste regardless of quality (Section 502(6)). Therefore, regulatory bodies are interpreting the goal literally to mean that all discharges, including the return of reclaimed water from industrial and agricultural use, must be eliminated by 1985 regardless of quality. Thus, the "zero discharge" concept is moving the implementing sections and programs in the Act toward elimination of all discharges. In the Intermountain West, water basin compacts and surface water adjudications have been based on historical flows which include return flows after upstream water use. Also, many of the water users on such rivers as the Colorado are anticipating return flow credits in order to fulfill future water needs. However, as a result of the zero discharge goal, as interpreted by state and federal agencies, states are being compelled to abandon water rights. Relative to water quality concerns, states are again compelled

to encourage consumptive use regardless of the fact that water quality impact from returned waters would be negligible. This effectively results in the compromising of the policy in Section 101(g) to protect a state's right to allocate water quantities within its boundaries and manage its water based on both quantity and quality considerations.

Impact on the West: In the Intermountain West where many surface streams can reach zero flows during periods of the year, downstream water availability relies heavily on the return of water to the surface stream. For example, Arizona, in its Water Pollution Control Act, requires the regulatory agency, in adopting regulations concerning discharges, to ". . . be guided by the principle that waters of the State are put to beneficial use within the State and become return flows to the waters of the State and subsequently reused, and that such rules and regulations shall not diminish the water available for such beneficial uses, nor deprive the State of such water." (A.R.S. Section 36-1854 B). EPA Region 9 has refused to grant primary enforcement authority to the State of Arizona under the NPDES program. A major stumbling block in this delegation of authority has been this legislative policy which Region 9 believes conflicts with the zero discharge goal. The real goal should be to eliminate the discharge of pollutants in harmful quantities.

Recommendation: It is recommended that Section 101(a)(1) be amended to read as follows:

> "It is the national goal that the use and re-use of waters of the United States be achieved with the minimum increase of pollutants and that the discharge of pollutants in harmful quantities into navigable waters be eliminated by 1985."

NAVIGABLE WATER DEFINITION

EPA's jurisdiction for regulation of water discharge under the Clean Water Act is confined to "navigable waters". The Agency, pursuant to court decisions, has defined the term "navigable waters" broadly so as to include stream beds that: (1) have water in them only occasionally as a result of rains or snowmelt; (2) do not support fish, shellfish or wildlife; (3) do not provide water to downstream users; and (4) do not flow into other streams, rivers, or lakes.

As a consequence of EPA's broad definition of the term "navigable waters", sources that discharge into such stream beds are threatened with large capital and operating expense to meet the Agency's effluent limitations regulations, even though the discharges do not harm surface waters nor adversely affect water quality in other water bodies.

Unique Features of Western Waters: The definition of navigable waters at Section 502(7) is so broad that it encompasses nearly every water course in the United States, including many normally dry arroyos in the West. Because of this broad definition, the prohibition at Section 301 of the discharge of pollutants into waters of the United States without a permit, applies to many streams which may not need this level of protection. In the arid western United States there are streams which flow intermittently as a result of rain runoff or snowmelt and when they do flow, do not empty into public bodies of water which need protection, do not support fish or wildlife and do not provide water for downstream users.

For instance, some industrial discharges are into streams which empty into desert playas which are in fact sealed basins where the water eventually evaporates. Most desert playas contain considerable naturally occurring salts and their waters are not used. Therefore, to require treatment of discharges into these playas is to require treatment for treatment's sake, since no use is made of the discharged water.

Recommendation: The definition of navigable waters (Section 502(7)) should be narrowed to exclude those bodies of water which have water in them only intermittently as a result of rain runoff or snowmelt, do not support fish, shellfish, or wildlife, do not provide water to downstream users, and do not flow into other water bodies.

NAVIGABLE WATERS AND WETLANDS

The overbroad definition of navigable waters also includes wetlands and requires that Section 404 Dredge and Fill permits not be issued unless specific steps have been taken to minimize adverse impacts on wetlands.

Impact on the West: As a result of court decisions and agency regulations, the definition of wetlands has been expanded to include "vegetation typically adapted for life in saturated soil conditions". In the West, this results in land temporarily saturated from snowmelt runoff and irrigation to fall under the jurisdiction of the Corps' 404 permit program.

In the Spring, snowmelt and subsequent runoff causes streambeds to overflow and adjacent lands to be temporarily saturated. Wetlands-type vegetation appears even though the stream may be dry at other times of the year. This results in many areas adjacent to intermittent streams in semi-arid areas being considered wetlands. Even though activity on these areas or affecting these areas do not have an adverse effect on navigation or interstate water quality, permits are required for wetlands protection.

Furthermore, it is not uncommon to find that lands in western river valleys have been or are irrigated for either farming or grazing purposes. As a result of the temporarily saturated soil conditions from irrigation, wetlands-type vegetation occurs on the borders of irrigation ditches, as well as in irrigated pasture lands. Under the present law, no permit is required for the discharge of fill material into an irrigation ditch, yet activity on the "adjacent" irrigated land may require a permit. - In Appendix B you will find an example of where irrigated pastures and lands, only inundated in the Spring as a result of snowmelt, are being required to have 404 permits.

Mining and energy development are often located in rural mountain valleys where either one or both of these temporarily saturated soil conditions exist. The impact of such development can be widespread if a major development is proposed or it can be very localized if a single building is constructed. In either case, the Corps' present practice is to require developers to apply for a 404 permit. To help mitigate the impact the Corps will either deny the permit, require costly alternatives to the project, or require costly habitat replacement. This is objectionable not only because of cost, but because it assumes all wetlands, even irrigated pastures, are of equal importance and deserve the same degree of protection. Furthermore, it allows the Corps to assert jurisdiction in areas of traditional local and State authority.

Recommendation: The definition of navigable waters (Section 502(7)) should be narrowed to eliminate artificial and/or seasonal wetlands. This can also be accomplished by exempting certain wetland areas under Section 404. These exemptions should include:

1. Lands adjacent to streams that either flow or overflow as a result of runoff waters.

2. Lands adjacent to isolated lakes, potholes, arroyos, intermittent streams and other waters that are not part of a tributary system to interstate waters or navigable waters.

3. Land areas containing wetlands-type vegetation as a result of irrigation practices.

THE EFFECT OF WATER QUALITY STANDARDS ON WESTERN WATER

When Congress adopted the Federal Water Pollution Control Act Amendments in 1972, attention in both government and industry was focused on implementation of the NPDES permit program and the development of technology-based effluent limitation guidelines (i.e., BPT and BAT). The permit program is now in place and effluent guidelines have been adopted for most major industries. With these jobs out of the way, significant governmental effort is being directed back toward the Act's original, pre-1972 concern -- the development and protection of ambient water quality standards.

Section 303(c) of the Clean Water Act requires states to establish "water quality standards" for all "navigable waters" within their borders. These "standards" must consist of two things:

(i) designated beneficial uses for the waters; and

(ii) water quality criteria for those uses.

Once adopted, these standards must be submitted to EPA for approval. EPA must grant approval if the standards meet "the requirements" of the Act. If EPA "disapproves" any standard submitted to it, the concerned state must be given a reasonable amount of time to develop a substitute standard which then becomes federally enforceable.

The standards have a direct regulatory impact because of the role they play in the NPDES permit program. Section 301(a) of the Clean Water Act prohibits all discharges of pollutants to "navigable waters" except as authorized by an NPDES permit.

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In turn, Section 402(a) of the Act requires these permits to "meet" certain minimum requirements. The most prominent of these, as discussed above, is the requirement that discharges reflect minimum levels of treatment technology, i.e., BPT and BAT. However, Section 301(b)(1)(C) of the Act also provides that:

> ...there shall be achieved..
>
> ***
>
> not later than July 1, 1977, any more stringent (effluent) limitation... required to implement any applicable water quality standard established pursuant to this Act...

In other words, dischargers must meet effluent limitations more stringent than BPT and BAT -- the technology-based standards -- if necessary to protect receiving water quality.

Impact on the West: Water quality standards are generally more stringent than technology-based effluent limitation guidelines, i.e. BPT and BAT. In wetter regions of the country, this disparity has little or no practical regulatory effect -- dilution flows generally enable technology-limited discharges to protect receiving water quality. Unfortunately, in perhaps the majority of cases in the arid west, industrial dischargers are asked to install treatment systems that are "better" than what EPA has defined as being "best". At a minimum, this creates confusion and uncertainty, and unreasonably increases the cost of compliance. At worst, it can lead to shutdowns, and prevent industries from locating or expanding their operations in desirable areas.

This breakdown in the regulatory process is the result of several practical problems in the way EPA and the states have implemented the standard-setting process:

i) In the course of preparing their proposals, standard-setting agencies totally ignore economic and technical limitations. Thus, their proposals fail to reflect any sort of meaningful planning.

ii) Due to the absence of any advance correlation between water quality standards and effluent limitations, industries are unable to predict the economic consequences of the agencies'

proposals. Even if agencies consider economics in the standard setting process, the standard still would not adequately reflect practical economic concerns.

iii) Furthermore, if meaningful economic information could be presented at standard-setting hearings, EPA limitations on the ability to elect against "fishable, swimmable" waters would render most data irrelevant.

In order to remedy this, industries and the States need to be allowed to consider economic issues to the permitting process without EPA disapproving such permits strictly on the basis of the "zero discharge", "fishable, swimmable" goals of the Act.

Recommendation: The solutions to the problems just discussed are very complex. Ideally, the existing standard-setting process should be modified to require a comprehensive, basin-wide water quality assessment, an assessment of the impact of proposals on dischargers, and a comparison of these impacts with regional planning goals. And, in fact, Sections 208, 303(e) and 304(a) of the Act suggest that such a modification would be consistent with the existing statutory scheme. However, as a practical matter, comprehensive hearings such as this are never held for the issues are too complex. Instead, each of the elements is addressed on a piecemeal basis.

In view of this situation, the most practical solution is probably to amend Section 302.

Section 302(a) of the Clean Water Act grants EPA the power to impose effluent limitations more stringent than those required under Section 301(b)(2) (i.e., BAT, BCT, and toxic pollutant effluent standards), if such limitations are necessary to protect public water supplies, agricultural uses, recreation, wildlife, fish, or shellfish. However, before taking such action, EPA must review the social and economic impact of the more stringent limitations. They cannot be imposed if there is "no reasonable relationship between the economic and social costs and benefits to be obtained. . . ."

A new subsection should be added to Section 302 requiring a similar review for all water quality based effluent limitations, whether imposed by EPA under Section 302 or by a state under Section 301(b)(1)(C). In effect, this would allow dischargers to consider economic issues in permit proceedings, and eliminate the "Catch-22" that prevents any detailed consideration of economic and technical issues until the discharger has worked through a compliance schedule.

The WRC also recommends that the statute be amended to ease EPA's restrictions on the state's ability to decide that "fishable, swimmable" waters are not desirable. In fact, as a matter of administrative policy, EPA is in the process of doing this. However, a statutory clarification would still be desirable for it would reinforce what EPA is now doing and it would prevent future administrations from reversing the policy.

The statute should be amended in two ways to accomplish this:

i) Amend Section 101(a)(2) to provide that the "fishable, swimmable" goal is only desirable if it can be attained in an economically reasonable manner.

ii) Amend Section 303(c) to modify EPA's role in the review and approval of state water quality standards. Provide that EPA may only disapprove of a standard if it is totally unsupported by the record, and will have a substantial adverse effect on interstate water quality.

CONCLUSION

Mr. Chairman, the Western Regional Council appreciates the opportunity to present its proposed amendments to the Clean Water Act. Your considerations of the Council's views is appreciated.

EXTENDING AND AMENDING THE CLEAN WATER ACT

THURSDAY, APRIL 14, 1983

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION,
Washington, D.C.

The subcommittee met at 9:30 a.m., in room SD–406, Dirksen Senate Office Building, Hon. John Chafee (chairman of the subcommittee) presiding.

Present: Senators Chafee, Stafford, Randolph, and Mitchell.

Senator CHAFEE. We welcome everybody this morning for our third and final day of hearings on the reauthorization of the Clean Water Act.

We are delighted to have three very distinguished representatives of the State of Maryland, two outstanding colleagues from the U.S. Senate, Senator Mathias and Senator Sarbanes, whom we welcome here, and of course we welcome the outstanding Governor of the State of Maryland.

I know, Senator Mathias, you have some time constraints. If you would like to make a statement, we would be delighted to hear it now.

STATEMENT OF HON. CHARLES McC. MATHIAS, JR., U.S. SENATOR FROM THE STATE OF MARYLAND

Senator MATHIAS. Mr. Chairman, I have left a short statement with the committee which I would appreciate being made a part of the record.

Senator CHAFEE. It certainly will be.

Senator MATHIAS. It is a pleasure to welcome the Governor of Maryland at all times and a particular personal pleasure to welcome Harry Hughes here today. I am pleased to present him to you. Thank you.

[Senator Mathias' prepared statement follows:]

INTRODUCTION OF GOVERNOR HUGHES

Thursday, April 14, at 9:30 a.m.

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

CONCERNING

S. 431, CLEAN WATER ACT AMENDMENTS

AND

PROVISIONS RELATED TO

CHESAPEAKE BAY

MR. CHAIRMAN, IT IS WITH GREAT PLEASURE THAT I HAVE THE OPPORTUNITY TO INTRODUCE TO THE SUBCOMMITTEE THE HONORABLE HARRY HUGLES, GOVERNOR OF THE GREAT STATE, MY HOME STATE, OF MARYLAND.

GOVERNOR HUGHES AND THE STATE OF MARYLAND HAVE BEEN IN THE FOREFRONT OF ENVIRONMENTAL PROTECTION EFFORTS. BLESSED AS WE ARE WITH THE GREAT NATURAL RESOURCE OF CHESAPEAKE BAY, THE NATION'S LARGEST AND MOST PRODUCTIVE ESTUARY, WE MARYLANDERS ARE PARTICULARLY SENSITIVE TO THE NEED TO MAINTAIN GOOD WATER QUALITY AND TO AVOID FURTHER DEGRADATION.

I COMMEND THE CHAIRMAN OF THIS SUBCOMMITTEE, JOHN CHAFEE, FOR TAKING THE INIATIVE IN THIS BILL TO RECOGNIZE THE PROGRESS WE HAVE MADE WITH RESPECT TO THE CHESAPEAKE AND FOR INCLUDING ANOTHER VERY IMPORTANT ESTUARY, THE NARRAGANSETT, FOR NATIONAL ATTENTION. BOTH OF THESE BAYS SHARE A COMMON, BUT SIGNIFICANTLY THREATENED FINFISH -- THE STRIPED BASS, OR "ROCKFISH", AS WE MARYLANDERS CALL IT. AGAIN IT WAS SENATOR CHAFEE'S INIATIVE WHICH FOCUSSED NATIONAL ATTENTION ON THE DECLINE OF THIS ATLANTIC COAST SPECIES WITH THE ANADRAMOUS FISH RESTORATION ACT.

WE ARE BEGINNING TO SEE OUR WAY OUT OF SOME OF THE WATER QUALITY PROBLEMS OF THE CHESAPEAKE. A RECENT HEARING WHICH I CHAIRED ON THE EPA'S CHESAPEAKE BAY PROGRAM PROVIDED US WITH MANY INSIGHTS WITH RESPECT TO FUTURE DIRECTIONS FOR THE CHESAPEAKE

AND FOR NATIONAL WATER QUALITY POLICY. I WILL BE SHARING THOSE INSIGHTS WITH THIS SUBCOMMITTEE IN A PREPARED STATEMENT FOR THE RECORD.

WHAT REMAINS TO BE DONE IS TO GARNER TOGETHER THE POLITICAL WILLPOWER OF THE CHESAPEAKE'S INTERSTATE WATERSHED TO FORGE AN AGREEMENT ON WATER QUALITY STANDARDS FOR THE BAY AND SPECIFIC POINT AND NON-POINT ACTIONS WHICH A HOST OF FEDERAL, STATE, AND PRIVATE ACTORS WILL TAKE TO ASSURE THOSE WATER QUALITY GOALS ARE ACHIEVED.

CLEARLY THE POLITICAL WILLPOWER OF THE STATE OF MARYLAND IS COMMITTED TO THIS BY THE PRESENCE HERE TODAY OF GOVERNOR HUGHES.

MR. CHAIRMAN, I GIVE YOU GOVERNOR HARRY HUGHES.

Senator CHAFEE. Thank you very much. I know your friend and distinguished Member of the Senate, Senator Sarbanes, is here. Senator, if you would like to give a statement, we would be glad to hear it at this time.

STATEMENT OF HON. PAUL S. SARBANES, U.S. SENATOR FROM THE STATE OF MARYLAND

Senator SARBANES. Thank you very much, Mr. Chairman. I would like to submit my statement for the record.

Senator CHAFEE. Definitely.

Senator SARBANES. I will summarize very briefly.

I am pleased to join with my colleague Senator Mathias in welcoming Governor Hughes to the Senate in his appearance before the committee this morning. The Governor has shown great leadership in the area of the environment with respect to clean water, and particularly with his focus on the Chesapeake Bay, which I think has been a centerpiece of his administration. His efforts to improve the water quality of the Bay, which we regard and, I think objective observers regard, as one of our Nation's greatest natural resources.

Mr. Chairman, I want to commend you for the legislation, S. 431, which you have introduced, for its provisions for a grant program for the purpose of implementing the management mechanisms developed by the EPA with respect to its Chesapeake Bay program. I can't overemphasize the importance of preserving the water quality of this great estuary and other similar great estuaries, including, of course, the one in your own state, Narragansett Bay.

Senator Mathias and I have participated in hearings with respect to the EPA program. The research that has been conducted has given us a great deal more knowledge about the bay and the impact of pollution. We know much needs to be done, but we think that the provisions you have made in your legislation for continuing research and for implementation of those findings which have already been made are extremely important. I know you will be hearing from the Governor of his own plans to move forward in conjunction with the surrounding States and the importance of this effort. But I wholeheartedly support your proposal. I think it reflects a great deal of understanding of the problem and a vision as to the future.

I am very pleased that the Governor is here to speak directly and at first hand about the efforts in our State to address the question of water quality and the improvement of the bay. Governor Hughes has been a leader in the Nation in this regard. I think his testimony before the committee this morning will be particularly pertinent and relevant.

[Senator Sarbanes' prepared statement follows:]

STATEMENT OF SENATOR PAUL S. SARBANES

HEARINGS ON THE CLEAN WATER ACT

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

APRIL 14, 1983

Mr. Chairman: I appreciate the opportunity to appear with Honorable Harry Hughes, Governor of Maryland, during today's hearings on the Clean Water Act Amendments of 1983. Marylanders are very much concerned about reauthorization of the Clean Water Act because the Chesapeake Bay is our State's and one of our nation's magnificent natural resources. These hearings today are therefore important and timely in that they address the critical need to continue the mandate of the Act so that the water quality of the Chesapeake Bay is enhanced.

The legislation, S. 431, which has been introduced by the Chairman of this Subcommittee establishes a grant program for the purpose of implementing the management mechanisms developed through the Environmental Protection Agency's Chesapeake Bay Program. The bill also directs that the Bay Program be continued so that point and non-point source pollution can be better understood and that research on the impact of pollutant loadings can continue.

The importance of this provision should not be underemphasized. We are at a critical juncture in the effort to preserve the water quality of this great estuary. The research conducted under the Bay Program has given us a great deal more knowledge about the Bay and the impact of pollution. We now know that we can no longer take a benign attitude toward the Bay. We better understand, for instance, that the Bay cannot rid itself of the pollutants coming into it at a fast enough pace.

While much research was conducted through the EPA Bay Program, time and resources limited its scope to three important areas: nutrients, toxics and submerged aquatic vegetation. However, other areas identified by Bay researchers must also be addressed: the effects of chlorine, acid rain, altered flow characteristics and other areas. In addition, research on the levels of toxics and other pollutants in the Bay should be continued with equal vigor. We simply cannot know enough about the complex estuarine systems of Chesapeake Bay, Narragansett Bay and other similar estuaries.

The research which would be authorized in S. 431 also has an important impact on the ways in which we will implement management actions pursuant to the interstate agreements. Beginning in the next year, Maryland, Pennsylvania and Virginia will be moving to make very important management decisions. Further support from EPA as embodied in Section 3 of the bill is going to be of the utmost importance to the success of any attempts at cooperative management actions.

Mr. Chairman, Governor Hughes will have more to say about the impact of the bill on our efforts to enhance Chesapeake Bay and I am pleased now to defer to him.

Senator CHAFEE. Thank you very much, Senator Sarbanes. I know you have a busy schedule. We appreciate your having come here.

Senator SARBANES. Thank you, Mr. Chairman.

Senator CHAFEE. Thank you.

Governor, we are very happy you have taken the trouble to come before this committee. We look forward to hearing from you.

I know that you have had outstanding success in the polls, and the environment has been part of your platform. I think it is always reassuring for the public to hear from somebody is in the political business that being proenvironment is good politics and that it is not costly to you as an individual or a candidate for office, that the people want a clean environment and are prepared to pay for it and will support candidates who speak out on behalf of the environment and are willing to put the money necessary into protecting the environment. If you could touch on that sometime in your statement, I think we would be very glad to have those reassuring words.

Why don't you proceed as you wish.

STATEMENT OF HON. HARRY HUGHES, GOVERNOR, STATE OF MARYLAND, ACCOMPANIED BY TORY BROWN, SECRETARY OF NATURAL RESOURCES

Governor HUGHES. Thank you, Senator. I do appreciate the opportunity to be here. Not only do I consider it a pleasant opportunity, but a terribly important one, because we are talking about something that is so important to the State of Maryland and I know as far as you are concerned to your State, Narragansett Bay, and for us the Chesapeake Bay.

You have just heard from two Senators, Senator Mathias and Senator Sarbanes, who have been enthusiastically supporting all of the efforts to preserve and restore the Chesapeake Bay to a healthy and viable situation. I do thank them for that. I commend and thank you and Senator Randolph for S. 431 that recognizes the importance of these two bodies of water not only to the States involved but to the entire Nation because they are of national interest. We do appreciate your concern.

In some response to what you just referred to, I don't think there is any question about the fact that the vast majority of citizens of not only my State but I think of every State are terribly concerned about the environment. They want their public officials to be concerned about the environment. If my election is any indication of that, I think that I can say there is no question in my mind that there is strong public support for protecting our air, our water, our natural resources. And anyone that is in public office I think should have no fear at all in pursuing those efforts. People are not only concerned for themselves, they are concerned for future generations.

As you know much better than I, we do have problems around the country with regard to our natural assets and our water and our air. I commend you for your efforts in that regard and can really say that I don't think any man or woman in public office

should be the least bit concerned about the political ramifications of being strong supporters of the environment.

My testimony obviously will be directed to the Chesapeake Bay because that is the body of water that I am familiar with and the one that lies within the borders of Maryland and the State of Virginia.

I might say at the outset that Governor Robb of Virginia very much wanted to be here today also. I think he has submitted a letter. But because of a previous engagement that he could not change, he was not able to be here.

The Chesapeake Bay really more than anything else forms the character of the State of Maryland. It divides our State geographically between the Western Shore and the Eastern Shore. The Eastern Shore happens to be where I was born and raised and lived until just a few years ago, so I have a particular fondness for that great body of water.

And it is. It is the largest estuary within the Continental United States. It contains a watershed of six States, 64,000 square miles, and some 8 million people. So it does have an interest to people beyond the borders of the State of Maryland. I am glad that you have recognized that through your proposed legislation, that this body of water is of national interest.

It produces one-quarter of the oysters that are produced in this country. It is the sole producer of the beautiful blue crab. And as you know, it produces some 90 percent of all the striped bass that swim along the Atlantic Coast. They even travel up as far as your wonderful State of Rhode Island. So it does have a particular national interest, and it is of great concern I think to not only people in Maryland but throughout this country, and certainly in the eastern part of this country, that we preserve that bay as a fertile maritime resource.

I might just add that in Maryland alone there are some 120,000 pleasure craft registered on the Chesapeake Bay. I don't have the statistics on this, but I can tell you that a large number of those are owned by people outside the State of Maryland, many people from Pennsylvania, the District of Columbia, Virginia. All you have to do is go into one of our little harbors at St. Michael's or Oxford or even Annapolis and look at the stern of the boat and you can see they come from many places outside the State of Maryland. So, it is terribly important. We recognize this. And I am really very pleased to report to you that there is enthusiastic cooperation between the State of Maryland and the State of Virginia with regard to the management of this bay.

About 3 years ago I entered into an executive agreement with the Governor of Virginia which provides that the executive departments of both States will share information, will meet regularly and join together in managing that resource. The legislatures of Maryland and Virginia have enacted a bi-State commission of legislators, and their sole purpose is to do what has to be done with regard to the Chesapeake Bay. So there is not only an extreme cooperative effort here between these two States, there is also a strong commitment between these two States on behalf of that wonderful body of water.

In addition to that, we are also experiencing tremendous cooperation from the State of Pennsylvania through Governor Thornburg. That is terribly important because one tributary that affects that bay more than any other is the Susquehannah River that actually starts up in New York and comes down through Pennsylvania and does have an impact on that bay, probably more than any other single body of water.

So these efforts have been going on. We have been working very closely with the EPA. As you know, a study was just completed, the $30 million 5- or 6-year study that was really directed at pointing out what are the problems of the bay. This study was managed by a management committee, an interstate management committee, comprised of representatives from Maryland, from Virginia, Pennsylvania, as well as the EPA. And as a result of that study, they have identified the problems of toxins and nutrients and shortage of grasses.

That study is now in the final stage to determine the management solutions to the problems that have been identified through the study. This will be completed probably next August or September. We have already arranged for what you might call a summit meeting between Maryland, Virginia, Pennsylvania, and the EPA next winter, in December. I might point out that in my written testimony, which has been submitted, the lengthy testimony, there is one minor error. It says the meeting will be in November. It won't be. It will be in December. It has been changed since that was prepared.

So your bill recognizes the national importance of both of these bodies of water. We think it is essential to provide the funding, the 55-percent match over the next 4 years, which I can assure you that the States of Maryland and Virginia are prepared to meet their obligations under the provisions of your bill. And it also provides something else that we feel is very important, and that is to continue an EPA presence in this effort by the provision for continuing the office for research and data processing in the EPA office that is now in Annapolis. This could translate into, over the next 4 years, something in the magnitude of $80 million with the Federal and State funds that could be used to protect and preserve the Chesapeake Bay.

We are willing, as I say, to do what we have to do at the State level because I know of nothing that is more important from our standpoint than to preserve that wonderful estuary. I know that the people of Maryland are behind me in this effort. So we salute you and do urge the passage of this legislation that you are proposing.

We are very concerned about the bay, and I am sure that you are concerned about striped bass. I can report to you that things are looking a little better with regard to striped bass. Our count last year was up from a previous low—we take a count every year—from two to eight. Now, that is nothing great, but it is a drastic increase in the period of 1 year.

We think part of the reason for that is that we started a program 2 years ago of reducing chlorine going into the spawning areas. We have in 2 years reduced the amount of chlorine out of the treatment plants going into the spawning areas by some 80 per-

cent. So we have reduced it by 60 percent the first year. We think that is having a good effect.

Senator CHAFEE. The spawning areas, you mean the Choptank and other rivers?

Governor HUGHES. The Choptank, which I grew up on, and the Susquehannah, I guess, too.

Excuse me. This is Dr. Tory Brown, who is my secretary of natural resources, who really was the father of that program to reduce the chlorine going into the river. And we have taken other steps. We were able to get a bill enacted by the Maryland Legislature last year to do something about runoff from farmland, the nonpoint sources which we are finding more and more are a big part of our problem in protecting our waters. This bill does provide financial assistance, a $5 million bond bill to farmers to assist them financially to engage in farming tactics like contour farming or no-till farming to prevent runoff.

I might add, we are getting a considerable amount of cooperation from the farming community up the Susquehannah River in Pennsylvania in this kind of effort.

We have developed a program for the Patuxent River, which is the largest river solely within the borders of Maryland, which also has an impact on the bay, a joint program between all the counties involved, EPA, State government, to restore that river to its vitality of the fifties. And that program does involve monitoring. It does involve reducing phosphorous and nitrogen going into the river. It involves stocking the river each year with some 2 million fish.

We think that can maybe serve as a model in our approach to solving the problems of the Chesapeake Bay, maybe applying that model to each watershed of each tributary.

So there are a lot of things going on between the States of Maryland, Virginia, and Pennsylvania, that I think are encouraging. But we do need the kind of help that your bill provides. With that, we feel confident that with the help and the advice and consultation of the EPA and the three States working together, that we will be very successful. There is no priority for my remaining 3 years as Governor that has any higher standing with me than restoring, protecting, and preserving the Chesapeake Bay.

There is one other program that we didn't mention that Dr. Brown has just suggested that I think makes a lot of sense, with regard to the runoff from farmland. He has suggested, and we are moving ahead with this—and as a result of his suggestion, Virginia is already moving ahead with it—in the payment-in-kind farm program, what he has suggested is that we persuade the farmers, and we are getting some good cooperation out of them, to take out of cultivation the land that borders on rivers and bays rather than elsewhere. It really doesn't make a whole lot of difference to them which land they take out of cultivation. So if they take out of cultivation the land bordering the rivers, it will serve as a buffer to prevent the runoff from the other land that is being cultivated.

We think that is going to really be very helpful. It doesn't cost any money. It is using a Federal program, I think, in a way that not only is accomplishing the purposes of the program but it helps us accomplish our purposes in preventing runoff into our rivers and into our bay. So we are quite excited about that program.

Mr. Chairman, that really is my testimony. As I say, we have submitted more lengthy written testimony. I would just close by, in addition to, saying I would be willing to answer any questions, to reemphasize how important we think this legislation is for these two estuaries of national interest, and to urge their passage, and to offer you any help and support we can in that regard.

Senator CHAFEE. Thank you very much, Governor. That has been very helpful testimony.

Where you can be of further assistance is to discuss this with your Maryland delegation in the House. Obviously we have the support of the Maryland delegation in the Senate. If you could take that up with your delegation in the House, that would be helpful. If you could ask Governor Robb to do the same, I suppose that would be the best approach. Would you be prepared to do that, to speak to Governor Robb about it?

Governor HUGHES. Yes, sir. We have already made some contacts, and we will continue that effort. I will certainly ask Governor Robb to do the same, and I am sure he will be delighted to do that.

Senator CHAFEE. Your mentioning the nonpoint sources is very significant because I am coming increasingly to the view that this legislation really has to tangle with the nonpoint source problem, which this committee in the past has been reluctant to do for a host of reasons. One, you are getting into possible potential difficulties with the agricultural interests; namely, the farmers. But I am now of the view that it is so significant, we just can't spend our time wrestling solely with the municipal and industrial wastes if we ignore the nonpoint source, which you have mentioned and Dr. Brown has apparently worked on, as being so significant.

I am interested in the modest program that you have. What do you do with the $5 million? How do you dispense it to a farmer? What does he get out of it?

Governor HUGHES. It is on a matching basis. There is a maximum that you can provide to any one farmer. But it would assist him financially in building berms or to prevent runoff, holding ponds, things of that nature, that he might not financially be able to do by himself.

It is a new program so there hasn't been a whole lot done yet. But we are moving ahead with it. And obviously some things, such as contour farming or no-till farming do not—and we are doing quite a bit of that no-till farming in Maryland now—do not involve any great expense. As a matter of fact, under no-till farming, it can be cheaper than the formal farming because you only have to run over the land once rather than five times. You don't have to cultivate. So it actually can be cheaper. But it does involve whatever kinds of projects, such as building berms, such as building holding ponds, that are going to cost the farmer money and give him financial assistance to do so.

Senator CHAFEE. Do you find the reaction fairly good from the farmers? Do you get resistance or are they prepared to cooperate? I suppose you have no leverage on them.

Governor HUGHES. No; I think they are prepared to cooperate. At least I haven't heard anything. When I don't hear complaints about it, I assume that things are going fairly well. And it is not

forcing anyone to do anything, but from what the people in my administration have reported to me, they are getting a fairly good degree of cooperation from farmers.

Now, it does take a period of time for educating and selling these kinds of projects. But our Department of Agriculture is working with the Department of Natural Resources and Health Department in getting this job done. Of course, the nonpoint sources are not restricted to farmland.

Senator CHAFEE. I appreciate that.

Governor HUGHES. We have developed a storm drainage management program with new regulations to try to alleviate some of the problems there, from areas, as you know, such as parking lots and industrial development.

Senator CHAFEE. I was interested in what you had to say and the work that Dr. Brown has done in connection with the striped bass. As you know, we have made a great effort in a nationally funded study in which the States have cooperated. How do you feel about the striped bass situation, either you or Dr. Brown? Are we making some progress? I know that you had an encouraging report that you mentioned.

Governor HUGHES. That is encouraging. We will be taking the yearly count this fall. We hope that is going to show even greater results. We have been able, in this legislative session that just ended Monday in Maryland, to get the law passed raising the minimum to 14 inches on the striped bass, which we think will be helpful. With your permission, if you would like to have Dr. Brown respond to that question.

Senator CHAFEE. Yes, I would be delighted to hear from Dr. Brown.

Mr. BROWN. We hope the count on the survival of the spawning season this year will continue to improve as it did last year.

Senator CHAFEE. Did you say you went to a basis of one to four?

Mr. BROWN. We went from two to eight, actually. It is a count that is taken in October, that is the same every year, and we would like to think that it is increasing because the Health Department has been responsible for taking chlorine discharge out of the spawning areas for some 3 years, increasingly taking the chlorine out of the spawning areas every year. If they survive, it is partly as a result of that. And we allow more 12- to 14-inch bass to spawn because we have increased the size you can catch.

Senator CHAFEE. Is that increase for commercial and recreational?

Mr. BROWN. Yes, for both. That 14 inches is being aimed at by all the States along the eastern seaboard. Maryland passed it. Now Virginia has hopes to change it.

Senator CHAFEE. Was that quite a struggle to get that through?

Mr. BROWN. Yes.

Senator CHAFEE. I bet it was.

Mr. BROWN. It was a great struggle.

Governor HUGHES. Fortunately, until this year Dr. Brown was a member of the Maryland Legislature, and he just accepted the appointment from me as Secretary of Natural Resources in January, I guess, or February. So he was very helpful with his former colleagues in the legislature in getting the bill through.

Senator CHAFEE. Used up a lot of his good will.

Mr. BROWN. Chips. It will be a short honeymoon.

Senator CHAFEE. Dr. Brown, you are familiar with section 404 of this legislation, are you not?

Mr. BROWN. Probably. What is it?

Senator CHAFEE. That is what deals with the preservation of the wetlands.

Mr. BROWN. Yes.

Senator CHAFEE. I don't want to go into all the detail, but I had the understanding that you were quite pro wetlands. If you or the Governor want to make any comments on that subject, we would be glad to have them for the record.

Governor HUGHES. Many years ago we developed a wetlands licensing law in Maryland to preserve public and private wetlands. That has worked very well.

Senator CHAFEE. For saltwater and freshwater?

Governor HUGHES. Yes, I think so.

Mr. BROWN. Yes.

Governor HUGHES. And for anyone to disturb the wetlands, they must go through a licensing procedure. We do have a wetlands hearing officer, and any of those permits have to be approved by the Board of Public Works in Maryland, which is comprised of three people: the Governor, the comptroller who is elected statewide, and the treasurer who is elected by the general assembly.

We are very careful with those. They follow the law very rigidly. That has resulted in really preserving our wetlands in Maryland that were fast disappearing through development; obviously terribly important ecologically for the marine life in the Chesapeake Bay.

Senator CHAFEE. That is very helpful. Your testimony is extremely interesting. I was looking at the statistics. I read "Beautiful Swimmer."

Governor HUGHES. Yes.

Senator CHAFEE. So therefore I was somewhat familiar with the bay, having sailed on it as well. But I must say the statistics you gave, particularly on the number of recreational vessels—what did you say, 120,000?

Governor HUGHES. 120,000 registered in Maryland alone.

Senator CHAFEE. It must represent a very tempting taxing target, doesn't it?

Governor HUGHES. Yes, it does. But we haven't been too successful in that regard because there is another side to it.

Senator CHAFEE. That is right. They can all skip into Virginia.

Governor HUGHES. Yes.

Senator CHAFEE. Thank you very much for coming, Governor, and Dr. Brown. We appreciate what you have done. If you would carry forward and mention to your State congressional delegation and speak to Governor Robb about it, we would find it very helpful.

Governor HUGHES. We certainly will. I feel confident we will get unanimous support there from our delegation.

Senator CHAFEE. Good. Thank you very much for coming. We appreciate it.

I notice that we have a statement from Governor Robb which will be entered at this point in the record.

[Governor Robb's statement follows:]

TESTIMONY OF

GOVERNOR CHARLES S. ROBB

ON S. 431

THE CLEAN WATER ACT AMENDMENTS OF 1983

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

APRIL 14, 1983

Mr. Chairman and members of the Committee, I wish to lend my support to the prompt reauthorization of the Clean Water Act legislation before you and to endorse, in particular, the amendment proposed by Senator Chafee to address the problems of the Chesapeake and Narragansett Bays.

The Chesapeake Bay is not merely a regional treasure. It is a significant national resource that cannot be allowed to deteriorate further. From its earliest discovery, man has been impressed with the Chesapeake Bay's size, navigability, and abundance of food. The Algonquin Indians named it "Chesepiooc" which loosely translates as the "Great Shellfish Bay." The early Spanish explorers considered it to be "the best and largest port in the world."

Today, the Chesapeake is still impressive. The Bay proper is approximately 200 miles long and ranges in width from about 4 miles to its widest point of 30 miles near the mouth of the Potomac. The water surface encompasses more than 2,200 square miles. Although it lies totally within the Atlantic Coastal Plain, it draws water from an enormous 64,000 square mile drainage basin and more than 50 tributaries contribute water to it.

As well as being the largest estuary in the continental United States, the Chesapeake is one of the country's most significant and valuable resources. Even after years of intensive use, it provides millions of pounds of seafood, is a major hub for shipping and commerce, supplies a huge natural habitat for wildlife, and offers a wide variety of recreational opportunities for residents and visitors.

The value of the Chesapeake Bay's fishing catch exceeds $100 million annually. It is the largest producer of blue crab in the world. More than half of the total U.S. catch of soft-shelled clams comes from the Chesapeake, along with more than a quarter of the nation's total yearly oyster catch. The Chesapeake Bay ranks third in the nation in overall fishery catch, exceeded only by the Atlantic and Pacific Oceans.

More than 90 million tons of cargo, with a value of nearly $24 billion, were shipped via the Chesapeake in 1979. Boasting two of the nation's five major Atlantic ports, the Hampton Roads complex and the Port of Baltimore, the Chesapeake Bay is a key commercial waterway. Nearly 50,000 commercial vessel trips are recorded annually from Chesapeake ports.

But its economic contributions are not its sole worth. One of the Chesapeake's most valuable functions is its role as a major wildlife habitat. Migratory birds and waterfowl use the Chesapeake as a major stop along the Atlantic Flyway. It is the winter home for approximately half a million Canadian geese and more than 40,000 whistling swans. It is a nesting area for the endangered bald eagle and osprey, whose largest U.S. population is found in the Bay region. While it is difficult to put a price tag on such values, that is exactly what I propose to do.

The Chesapeake Bay that I have described sounds like an environmental and economic paradise. It is not. This year, the Environmental Protection Agency, together with the states of Virginia

Maryland, and Pennsylvania concludes a six-year study of the Bay. The Chesapeake Bay Program was established in accordance with a 1976 Congressional mandate to assess the health of the Bay, determine factors adversely affecting it, and recommend management strategies for controlling pollutants. The results of this study have confirmed that the Bay system is undergoing major ecological changes. The problems identified by EPA and the Chesapeake Bay Program are that:

- high concentrations of toxic materials are captured in the sediments of certain areas of the estuarine system;
- levels of nutrients in many areas of the Bay are increasing;
- the loss of dissolved oxygen in the deeper portions of the Bay is increasing;
- submerged aquatic vegetation is declining;
- certain anadromous fish harvests are declining;
- shellfish harvests are declining.

These are long-term problems which require long-range solutions. These solutions require a cooperative approach not only among the users and beneficiaries of the Bay's wealth, but among federal, state and local governments as well.

The EPA-Chesapeake Bay Program is one of several management efforts involved with the Chesapeake Bay. Included in this program is a Management Committee composed of representatives from Pennsylvania, Maryland, Virginia and the public at large. Unfortunately, the program which supports this committee is scheduled to end on

September 30, 1983. Their accomplishments include a bay-wide data base, scientific research into key areas, identification of specific environmental problems, development of alternative management solutions, and recommendations for cooperative management.

In addition to the EPA-Chesapeake Bay Program other efforts to better manage the Bay include:

- Maryland-Virginia Chesapeake Bay (Legislative) Commission which has been central to the development and passage of fisheries legislation and functions as a forum for coordinated legislative initiatives on Chesapeake Bay management problems.

- Maryland-Virginia Bi-State (Executive) Working Committee which has focussed on fisheries management and water quality issues. This Committee has been a forum for cooperative efforts on Chesapeake Bay actions implemented by the executive branch of state government.

- A Chesapeake Bay Conference sponsored by the states of Maryland and Virginia is scheduled for December 1983. It is to be a bay-wide conference which will place before the public the EPA-Chesapeake Bay Program findings and recommendations for their review and discussion and for developing a consensus concerning further managment programs and policies for the Bay.

While Virginia is geographically at the receiving end of the Bay's drainage system, the state takes very seriously its responsibility to minimize its contribution of pollutants. As our population grows over the next decade, we will be faced with increasing pressures on the water quality and resources of the Bay and its tributaries. Managing the Bay will require the careful study of a wide range of management options and a constant and substantial investment of the Commonwealth's resources in their implementation.

Virginia has begun to develop such a coordinated state program for the management of its portion of the Chesapeake Bay. This initiative will serve as a permanent yet evolving guide, directing the state's involvement in all aspects of Bay management. It will gather together all relevant Virginia state management activities within one comprehensive policy framework and provide a mechanism for meeting new problems and opportunities as they arise. While the development of the overall state program is only now in process, its primary goals are to:

- protect and enhance the Chesapeake Bay's water quality and resources;
- accommodate growth and development in an environmentally sound manner;
- cooperate with other states and the federal government in the management of the Chesapeake Bay and its resources.

At a minimum, I expect Virginia's program to begin to address critical problems in the James, Potomac, Elizabeth, York and Rappahannock Rivers and in the small coastal embayments. I intend to designate resources to correct both toxic and nutrient problems from both point and non-point sources. At this time Virginia is considering strategies to control agricultural run-off, overloading of sewage treatment plants, and contamination of shellfish beds. We are developing more sophisticated monitoring programs and data management systems, as well as mounting a new effort to manage our fisheries resources.

I believe Virginia's strategy is entirely consistent with the intent of Senate Bill 431. An "interstate management plan" is one which appropriately emphasizes the development of a consensus on problems and objectives, but which leaves the definition and design of specific management programs to the individual states. There will be some instances, particularly in the monitoring and data management areas, where a single program defined and managed in some cooperative manner may be the most effective approach. The general strategy, however, must continue to be one which builds upon the responsibilities and capabilities of the individual states of the Chesapeake Bay drainage basin. I say "builds upon" because the states alone cannot bear the burden of protecting and managing the natural resource that is the Chesapeake Bay.

The Chesapeake Bay knows no absolute state boundaries, but rather shares its wealth and its beauty with the nation. The proposed new Section 117 reflects the equity of requiring others, including the federal government, to share in its protection so as to assure its future bounty.

Although the Chesapeake Bay is 10,000 years old and, as such, a part of Virginia's and the nation's history, in geological terms, the Chesapeake is very young. If the entire geological calendar from the earliest fossil formations were to be equated to one year, the Chesapeake Bay would be less than one minute old. If in one minute of the earth's life the Chesapeake Bay has given as much as I have shown here, imagine what great potential the Bay has before it if only we begin to act together at this very moment.

Thank you for the opportunity to comment on this very important issue.

Senator CHAFEE. The next person to testify will be Mr. William Barnard from OTA.

I note our distinguished chairman is here. Senator Stafford, you have a statement, I believe. Would you like to give it now or put it in the record? How would you like to handle it?

Senator STAFFORD. What I would like to do, Mr. Chairman, is first thank you and then I will place it in the record, with your permission.

Senator CHAFEE. Fine.

[Senator Stafford's statement follows:]

STATEMENT BY SENATOR ROBERT T. STAFFORD
ON THE CLEAN WATER HEARINGS OF 1983
ROOM SD-406 DIRKSEN SENATE OFFICE BUILDING
THURSDAY, APRIL 14, 1983

I appreciate the attendance of Senators Mathias and Sarbanes and Governor Hughes at the Subcommittee's Clean Water proceedings today. Their presence underlines the importance of the protection of Chesapeake Bay to the residents of Maryland and the nation at large. The Chesapeake Bay is an magnificent natural resource which deserves our attention and care. I have developed a personal interest in the Bay after many pleasurable hours of boating and fishing in those waters. I know that I share a deep concern with many other citizens over the degradation that has occurred in the Bay despite Clan Water Act provisions. An extensive study was undertaken by the EPA, over the past 7 years, to determine the factors contributing to the visible deterioration of the Bay and its aquatic life. The study results and management recommendations are to be completed next fall.

It is essential that these recommendations be put into practice by the numerous government entities involved in Chesapeake Bay restoration and protection. This project will serve as a demonstration of effective intergovernmental resource management and a testament to our commitment to preserve our priceless natural resources. I can assure you that the progress achieved through the Bay program will be of continuing interest to me and other members of Congress.

Also of interest to myself and many others are the topics of Clean Water complaince dates and the national pretreatment program which are on our agenda this morning. I am eager to hear what the witnesses have to say on all sides of these issues. I would simply like to state my belief in the importance of timely compliance with the technology requirements of the Act and the rigorous implementation of a uniform national pretreatment program. We must maintain the national commitment to water quality restoration and public health protection currently reflected in the Act and strongly supported by the American public.

Senator STAFFORD. I thought that I would be involved in another committee meeting this morning, but the work of the Lord has been done there, so that allows me to come over here.

Senator CHAFEE. Well, I hope you brought the Lord with you to this meeting. We can always use him in this room as well.

All right. Dr. Barnard, please.

STATEMENT OF WILLIAM BARNARD, OFFICE OF TECHNOLOGY ASSESSMENT

Dr. BARNARD. Thank you, Mr. Chairman.

My name is William Barnard. I am the project director of the Office of Technology Assessment's study of approaches to wetlands use, which was undertaken at the request of this committee in October 1981. It is scheduled for completion within the next 3 months.

The report deals broadly with wetlands and addresses topics such as wetland values, trends in their use, and State and Federal wetland programs. The report does not focus specifically on section 404 of the Clean Water Act, which regulates the discharge of dredged or fill material in all waters of the United States. However, because the 404 program is the major avenue for Federal involvement in controlling the use of wetlands, many of our findings relate directly to this program and its implementation by the U.S. Army Corps of Engineers.

While our final report has not yet been completed or reviewed by OTA's Congressional Board, I am able to share some of our preliminary findings with this committee.

INTRODUCTION

I would like to begin by discussing three major findings concerning wetlands. First, Fish and Wildlife Service data indicate that in the 20-year period prior to the full implementation of the 404 program, approximately 11 million acres of vegetated wetlands were converted to other uses.

Second, activities such as excavation, clearing, drainage, and flooding were responsible for the vast majority of these wetland conversions. Because the 404 program does not actively regulate these activities, its ability to control the use of wetlands is limited.

And third, our detailed review of available information on wetlands shows that there are insufficient data to accurately determine the extent to which the 404 program either protects wetlands from conversion or imposes costs on development activities.

In the remainder of my testimony I will expand on the first two findings while recognizing the limitations imposed by a lack of definitive data. I will conclude my statement with a brief discussion of options for changing existing wetland policies and for improving Congress policymaking capability.

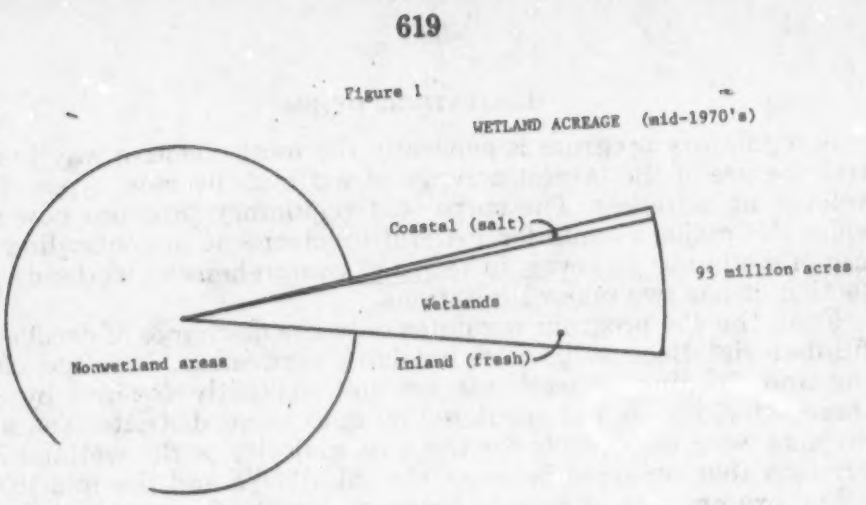
TRENDS IN WETLAND USE

Many undeveloped wetlands provide valuable natural functions. A number of commercially and recreationally important species depend on wetlands for food and habitat. Approximately 20 percent of the plant and animal species on the Federal endangered species list are considered specifically adapted to wetlands. Also, some wet-

lands can retain and regulate the flow of pollutants, reduce shoreline erosion, temporarily store storm run-off, recharge groundwater, and influence atmospheric and climatic processes. On the other hand, many of these same wetlands are valuable to development activities, such as agriculture, mining, forestry, oil and gas extraction, and urban development. The development of wetlands is therefore controversial.

Within the last 200 years, 30 to 50 percent of the wetlands in the lower 48 States have been converted to other uses. As of the mid-1970's, wetlands covered approximately 5 percent or 93 million acres of the United States, exclusive of Alaska and Hawaii. As shown in figure 1, 95 percent of these wetlands are located in inland, freshwater areas; 5 percent are coastal, saltwater wetlands. According to the Fish and Wildlife Service's data on wetland trends in the lower 48 States, each year between the mid-1950's and the mid-1970's about one-half of 1 percent of all vegetated wetlands were converted to other uses. This is equivalent to a net loss of approximately 550,000 acres of vegetated wetlands per year. Conversions are continuing, but probably at a lower rate due to apparent decreases in agricultural conversions. Rates of loss vary throughout the country. For example, coastal wetlands were being converted at rates that were 45 percent less than the national average.

Figure 1


WETLAND ACREAGE (mid-1970's)
Coastal (salt)
93 million acres
Wetlands
Nonwetland areas
Inland (fresh)

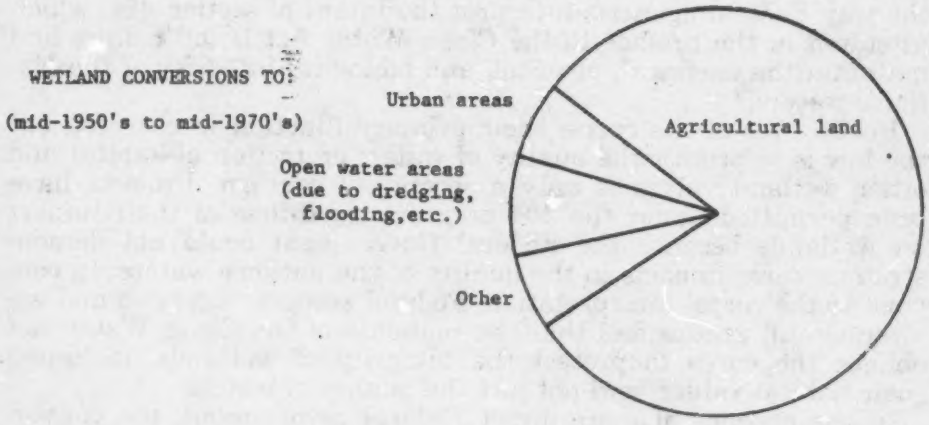
LIMITATIONS OF 404

A regulatory program is generally the most effective way to control the use of the largest acreage of wetlands by most types of development activities. The corps' 404 regulatory program now provides the major avenue for Federal involvement in controlling the use of wetlands; however, in terms of comprehensive wetlands protection, it has two major limitations.

First, the 404 program regulates only the discharge of dredged or fill material. Because projects involving excavation, drainage, clearing and flooding of wetlands are not explicitly covered by 404, these activities are not regulated by most corps districts. Yet, such projects were responsible for the vast majority of the wetland conversions that occurred between the mid-1950's and the mid-1970's.

For example, as shown in figure 2, about 80 percent of actual wetland losses during this 20-year period involved drainage and clearing for agricultural purposes which are not now actively regulated by either the 404 program or State programs; the remaining 20 percent were converted for other uses, such as reservoirs, urban development, forestry, mining, and road construction.

Figure 2


WETLAND CONVERSIONS TO:
(mid-1950's to mid-1970's)
Urban areas
Agricultural land
Open water areas
(due to dredging,
flooding,etc.)
Other

The second limitation results from fundamental differences in the way Federal agencies interpret the intent of section 404, which as stated in the preface to the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

In the eyes of the corps, their primary function in carrying out the law is to protect the quality of water; protection of habitat and other wetland valves is only a secondary concern. Projects have been permitted under the 404 program regardless of their impact on wetlands because the Federal Government could not demonstrate adverse impacts to the quality of the nation's waters. In contrast to the corps' interpretation, Federal resource agencies and environmental groups feel that the mandate of the Clean Water Act obliges the corps to protect the integrity of wetlands, including their habitat values, and not just the quality of water.

In the absence of more direct Federal involvement, the conversion of most inland wetlands is likely to remain essentially uncontrolled.

POLICY OPTIONS MODIFYING WETLAND POLICIES

Based on existing information and attitudes concerning the development of wetlands, Congress may wish to increase or decrease the existing level of federal involvement in controlling the use of wetlands. In addition to considering changes to 404, other types of policies might be applied to different development activities.

For example, agricultural conversions might be best controlled through the use of economic measures. Both the degree of wetlands protection and the cost to developers would generally decrease with less Federal involvement; however, the extent of such decreases probably can't be quantified.

Some examples of ways to increase Federal involvement include: broadening the 404 program to explicitly regulate most activities that impact wetlands; for agricultural activities, eliminating eligibility of wetland conversions for existing tax incentives and also increasing funding of the Water Bank Program; reversing most of the administrative changes made by the Corps in the last 2 years.

One way to decrease Federal involvement would be to further restrict corps jurisdiction to traditionally navigable waters.

IMPROVING OUR POLICYMAKING CAPABILITY

At the outset of our study, we outlined many fundamental issues that needed to be addressed in order to evaluate this country's overall capability to manage wetlands. These included: How has our environment been impacted by past wetland conversions? How have overall trends in wetlands use changed over the last decade in light of Federal and State wetland policies? Which wetlands are considered most important and deserve the greatest degree of protection? Unfortunately, the available data to answer these questions are scanty and often highly uncertain.

Our present ability to manage wetlands could be greatly improved by determining recent trends of wetland use, evaluating the significance of conversions on our environment, and analyzing the effect of different policies and programs on wetlands use. Complet-

ing these three activities would provide an analytical basis for deciding what level of Federal control over the use of wetlands is most desirable and how best to change existing policies to achieve this level of involvement. Any modified Federal programs could be further improved by conducting an additional activity that involves tailoring policies to wetlands based on a prior evaluation of their relative importance.

The Fish and Wildlife Service has recently completed its survey of wetland trends for the 20-year period prior to the mid-1970's. Information on trends after implementation of the 404 program is not now available. However, as currently planned, the Fish and Wildlife Service will be updating its trend analysis for the 10-year period after the mid-1970's. This analysis should be available in 1987. In addition to determining national trends, it may also be possible to provide better information on regional trends by surveying additional areas.

Additional information on the significance of wetland conversions on our environment would provide a better technical basis for changing the degree to which different wetlands are protected. It is clear that undeveloped wetlands provide some values. However, the extent to which our environment will be degraded by additional wetland losses is uncertain. For example, it is clear that ducks are dependent on wetlands for food and habitat. But it is difficult to determine how much duck populations are adversely affected by incremental wetland losses. A detailed understanding of all wetlands systems in the United States is not necessary; much could be learned from a small number of well-designed, long-term research studies of individual wetland systems.

Additional analysis of wetland programs and their effect on the use of wetlands would provide a better basis for modifying existing programs in light of the results of the two activities that we have just discussed. For example, the corps could collect better permitting information at the district level on project acreages, types of wetlands impacted, et cetera. An evaluation of the Department of Agriculture's Water Bank program could indicate the effectiveness of leasing options for reducing agricultural conversions. State regulatory and incentive programs could also be evaluated in more detail.

Section 404 presently requires that the corps' regulatory program cover "all waters of the United States." The corps has attempted to make this broad responsibility more manageable by eliminating the need for case-by-case review of projects in isolated wetlands and wetlands in headwater areas. Environmental groups and resource agencies, however, protest these exemptions because they feel that valuable wetlands in these areas are not being protected.

Rather than continuing to evaluate all proposed wetland projects on a case-by-case basis, an alternative approach might involve tailoring policies to different wetlands based on a prior evaluation of their relative importance on a regional or perhaps national basis.

For example, the most important wetlands could be acquired or covered by easements or stringent regulations; less important wetlands could be less stringently regulated. Although wetland policies are not now tailored to different wetlands, developers, environmentalists, and wetland scientists generally agree that some wetlands

are more important than others. However, there are only a few places where wetlands have been mapped and broadly categorized.

Scaling protection to different wetlands according to a prior evaluation of their relative importance has several advantages. Agency funding and personnel can be focused on the most important wetlands in different regions of the country. Developers would also have prior knowledge about requirements for developing specific wetland areas. Finally, there would be greater opportunity to avoid high-value wetlands if they were identified in advance.

If Congress wishes to develop the capability to tailor wetland policies in this manner, important wetlands would first have to be mapped. Areas where development pressures are greatest could receive the highest priority for mapping. Different wetlands could then be placed in three to five broad categories according to their relative importance. Finally, policies and programs could be tailored to different wetlands and activities. For example, high-value wetlands in a prime agricultural region might be covered by sizable leases from the Water Bank program; nonagricultural activities in the same region might be covered by more or less stringent regulations depending on the importance of the wetlands.

To insure that the analytical activities that we have just discussed are relevant both to the missions of the involved Federal agencies as well as the policymaking process in general, an integrated and detailed work plan could be developed. Based on our work on this and other assessments, we believe that this plan should include a description of all ongoing and new activities, agency responsibilities, coordination procedures, funding requirements, and opportunities for congressional oversight. This plan could also provide the overall framework for actually tailoring policies to different wetlands and development activities. Rather than waiting until the wetlands in all parts of the country have been mapped and categorized, existing wetland programs could be gradually modified on a regional basis as information is collected and analyzed. The overall effectiveness of this tailoring process should be monitored and refinements made as required.

Mr. Chairman, that concludes my statement.

Senator CHAFEE. Thank you very much, Dr. Barnard, for a very fine statement. This is an area that this subcommittee and the full committee are deeply interested in. So you have struck a responsive chord here.

I think that the message you bring, which one doesn't like to hear, that the loss of wetlands over the past 20 years has been 11 million acres that have been converted to other uses. That is really astonishing.

I think we had a feeling that the 404 program was fairly effective, but you have thrown some cold water on that, indicating that it doesn't really get to some of the major problems that we ought to be getting to.

Let me ask you a couple of questions. What do you mean when you say agricultural conversions might be best controlled through the use of economic measures? You didn't give any illustrations of that. What are you talking about there?

Dr. BARNARD. Because of the vast number of agricultural activities that take place in the United States, we feel that it would be

very difficult to regulate all the agricultural activities that may be taking place in wetlands areas. Perhaps we can more effectively address these activities by eliminating some of the tax incentives that we presently have to clear and drain wetlands, or perhaps we could increase the scope of the Department of Agriculture's Water Bank program.

Senator CHAFEE. Yes, you mentioned those. What about the legislation that was introduced by Senator Armstrong last year? That seems to have considerable merit which would require that those who receive subsidies of one kind or another would be required to observe what we might call good conservation practices as regards their topsoil but as regards perhaps the preservation of wetlands as well.

Dr. BARNARD. That might be one way to approach it. I think that regardless of your approach, the effectiveness of any policies has to be monitored. The monitoring and enforcement of any of these policies would be very important. But yes, that might be a very effective way.

Senator CHAFEE. I suppose this great plunge into PIK, the payments-in-kind, and the withdrawal of land from agriculture uses presents us with an opportunity to step in when the land is being withdrawn, and presumably there is less thrust to try to convert existing wetlands to agricultural use, so that this might be the time to move ahead.

Dr. BARNARD. I think that perhaps some provisions that address wetlands could be incorporated in a PIK program. I think if wetlands were included within acreage that is now covered by the PIK program, obviously the integrity of those wetlands would be preserved. However, if commodity prices increase, there may be additional pressures on wetlands that are not covered by the PIK program.

Senator CHAFEE. What is an undeveloped wetland?

Dr. BARNARD. A wetland in its natural state that hasn't been impacted by development activities.

Senator CHAFEE. I was referring to your statement where you are talking about wetlands generally. I didn't know undeveloped wetlands was a category. It seems to me wetlands is by its very definition undeveloped, isn't it?

Dr. BARNARD. That is right, sir.

Senator CHAFEE. So that was just a throw-away in there, the word undeveloped? I am not trying to put you on the spot. I was just wondering if I missed something.

Dr. BARNARD. No. We were referring to natural, undeveloped wetlands.

Senator CHAFEE. I see. I don't know whether we can do much with the Water Bank program, because I understand the administration is not funding that anyway. Is that right? That is what I understand.

Dr. BARNARD. I think last year it was funded at a level of around $10 million. I think it may have been scheduled for elimination, but as far as I know it still exists.

Senator CHAFEE. In your statement you suggest: "If Congress wishes to develop the capability to tailor wetland policies in this manner, important wetlands would first have to be mapped." With-

out feeling you are under oath, how long do you think it would take for such a process to take place? Even if you went ahead and did those areas that you thought were the most threatened, for example, you did those first, how long would this process take?

Dr. BARNARD. The Fish and Wildlife Service in its National Wetlands Inventory is in the process of mapping the wetlands in the United States. At this time they have completed mapping approximately 30 percent of the wetlands in the lower 48 States and, as I recall, 4 to 6 percent of the wetlands in Alaska. With their present program, they can map an additional 5 percent of the wetlands in the lower 48 States every year.

Senator CHAFEE. So in any event, it is going to take awhile.

Dr. BARNARD. Yes, it may take awhile. But by mapping those areas where the development pressures are higher, some tailoring of present policies could be accomplished in the very near future.

Senator CHAFEE. In what parts of the country are the biggest losses of wetlands?

Dr. BARNARD. The rates are highly variable throughout the country. I think, as I mentioned in the testimony, the rates in coastal areas are 45 percent less than the rates in inland areas. And there are some parts of the country, such as the lower Mississippi Valley, where rates are approximately three times higher than the national average.

Senator CHAFEE. What activities are responsible for most of the loss? You indicated a host of activities: Agriculture, development, so forth. What is the principal cause as you see it?

Dr. BARNARD. Based on the information that we have, most losses are due to the clearing and draining of the bottomland hardwoods, at least in the lower Mississippi Valley, for agricultural purposes.

Senator CHAFEE. As you saw it, did 404 cover most of the activities which were causing the greatest loss of wetlands? In other words, could 404 be applied to them or did you see that it just didn't touch those activities at all?

Dr. BARNARD. That is a controversial area. There are some people who say that 404 should be regulating those clearing activities. At this time the matter is in the courts.

Senator CHAFEE. That was sort of a nonanswer. So you are not sure.

Dr. BARNARD. Well, apparently there seems to be some controversy.

Senator CHAFEE. In other words, the biggest single loss is coming from draining, you think, of the hardwood areas.

Dr. BARNARD. In the lower Mississippi Valley, yes.

Senator CHAFEE. How about nationally?

Dr. BARNARD. Nationally, probably most of the activities are due to agricultural conversions.

Senator CHAFEE. You are not sure whether 404 covers that?

Dr. BARNARD. Normal agricultural activities are explicitly exempted from coverage by section 404.

Senator CHAFEE. Then the question is whether that is normal or not?

Dr. BARNARD. Well, in a lot of areas it is difficult to determine whether the conversions are due to normal activities or the large-

scale clearing. But certainly in some areas of the country the losses are definitely due to large-scale clearing.

Senator CHAFEE. I have some other questions here that I will submit to you in writing, Dr. Barnard. We would appreciate it if you could get us an answer back.

Dr. BARNARD. OK.

Senator CHAFEE. Let me ask you a final question. As you reviewed it, do you find 404 being evenly applied throughout the country?

Dr. BARNARD. No. There is a great deal of variability in the way the program is being implemented within the different corps districts. The corps districts are semiautonomous. Because of that, there is quite a bit of variability throughout the country.

Senator CHAFEE. All right. Then I will submit the balance of these questions to you. That is a very significant study you have undertaken and it is extremely helpful to us. Your report is very valuable. I think you said the study will be finished in about 3 months?

Dr. BARNARD. We are hoping to get it completed within the next 3 months, yes.

Senator CHAFEE. Thank you very much for coming.

Mr. BARNARD. Thank you, Senator.

Senator CHAFEE. Next we will have a panel: Mr. West, Mr. Banks, Mr. Forney, Mr. Blower, and Mr. Gerwert.

Gentlemen, your statements will be put into the record, and if you could summarize them, that would be very helpful.

Why don't we take you in the order that you were called. We will start with Mr. West. We welcome you, Mr. West, and look forward to your summation.

STATEMENT OF WILLIAM WEST, DIRECTOR, ENVIRONMENTAL CONTROL, REPUBLIC STEEL CORP., CLEVELAND, OHIO

Mr. WEST. Thank you, Mr. Chairman.

Mr. Chairman, I am William L. West, director of environmental control for Republic Steel Corp. I am appearing here today on behalf of the American Iron and Steel Institute, a trade association which includes 63 domestic corporations representing about 90 percent of the steel-production capacity in the United States.

I wish to present the viewpoints of the American Iron and Steel Institute on proposed bills S. 431 and S. 432 to amend the Clean Water Act. I will excerpt some of our testimony here in the interest of time. I won't read our entire written submission.

Our industry believes that changes should be made to the Clean Water Act which will not compromise the fundamental goals of the act. These amendments should modify some of the deadlines in the current act which have proven impossible to attain and should ease some of the unnecessary burdens that are imposed on our industry and on the Nation's economy by the act. We believe these amendments can simplify the job of attaining the goals of the act.

Before discussing specific amendments to the act, I would like to provide a little background on the steel industry. The steel industry has in the past and continues to support the environmental objectives established by the Congress. The steel industry is commit-

ted to carry out responsibly our share of the Nation's water pollution control program. Our industry has already invested over $2 billion in facilities for the control of water pollution. We have in place today facilities to control about 95 percent of all potential pollutant discharges. Only last month we completed a settlement agreement with the U.S. Environmental Protection Agency and the Natural Resources Defense Council which finalizes the effluent limitations guidelines for our industry and resolves all court challenges to regulations which were promulgated in May 1982. Under these new effluent limitations guidelines, we will be installing additional facilities to achieve control of over 99 percent of all the discharges of conventional, nonconventional, and toxic pollutants from our plants. I think our record in the area of water pollution control is one of which we can and should be proud. We clearly recognize our responsibility to continue the work toward further environmental improvement.

However, this Nation and the steel industry are faced today with unprecedented economic problems. The American economy is in a severely depressed State. National unemployment is at the highest level since the Great Depression, and the real gross national product of this country actually decreased during 1982.

While these conditions affect almost every segment of our society, the steel industry, the Nation's most basic industry, has been one of the hardest hit. In 1982, our industry operated at well under 50 percent of its capacity. Shipments in 1982 were just under 60 million net tons, compared with 87 million tons in 1981 and a record high in 1973 of 111 million tons. Employment in the steel industry in 1982 declined to 299,000, the lowest level since complete records have been kept, starting in 1933. At the end of last year, over 150,000 workers in the steel industry were on layoff and another 25,000 on short workweeks.

I recognize that this committee is not directly involved with the economy or with other problems of our industry. Nonetheless, these things must be considered in carrying forth this Nation's environmental program. We believe that the solution to the Nation's economic problems lies, among other things, in modernization of industry to increase productivity and provide jobs. We believe that growth and modernization are fully compatible with rational environmental policies. We would emphasize that new, modern facilities are inherently cleaner and less polluting than older, existing plants. That is why we believe that at this stage of the evolution of the Nation's water pollution-control program some amendments to the Clean Water Act are essential. These amendments are needed to permit prudent use of our environmental expenditures so that we can achieve a balanced program of economic growth and environmental progress.

Turning to specific amendments to the Clean Water Act, our first and foremost concern is that some compliance dates under the act must be extended to recognize that current deadlines have become impossible to achieve, both technically and economically. The Clean Water Act at present requires all industrial dischargers to achieve most final requirements by July 1, 1984. One of the premises on which that deadline was set was that effluent limitations guidelines were to have been established by mid-1980. That

schedule would have provided for industry a 48-month period from establishment of the guidelines to completion of facilities.

I would point out that establishment of effluent guidelines is only the first step toward final compliance. The second step toward final compliance is incorporation of these guidelines into NPDES permits establishing the requirements for specific plants. Until those two steps are complete, a discharger does not have the necessary information to begin process selection, design, and construction.

Based on extensive steel industry experience, we can say that leadtime from the establishment of permit requirements to routine operation of complex control systems, the type required for final treatment in the steel industry, is a period of about 36 to 42 months.

Senator CHAFEE. Mr. West, I don't want to cut you off, but you have gone 5 minutes. We will give you a little more time. Go ahead.

Mr. WEST. Well, in summary, on the extension, the steel industry——

Senator CHAFEE. Let me just say this: You are going to get an extension. The question is how long an extension. All right. Why don't you address that.

Mr. WEST. We support the extension in Senate bill 432.

Senator CHAFEE. Senator Randolph's?

Mr. WEST. Senator Randolph's bill. We believe that S. 431—we would not be able to comply in many circumstances because of the leadtimes required.

Senator CHAFEE. You get 3 years from the publication of the regulations.

Mr. WEST. Our effluent limitations guidelines were established and effective in July of 1982. We have yet to receive the permits that spell out the requirements, so we are not in a position to begin engineering and construction of these facilities. For that reason we can't meet that January 1, 1986 date.

Senator CHAFEE. Now I understand Republic has two plants in Canton and Massillon, Ohio, which are, in effect, in compliance with BAT. Is that correct?

Mr. WEST. Yes, sir. When we built those facilities, they were designed in such a manner that with the effluent limitations guidelines that were published last year, we are confident we are in compliance on those two plants.

Senator CHAFEE. I must say I don't quite get your point. You say that you don't know what you meant to do under the guidelines in order to comply?

Mr. WEST. Well, Mr. Chairman, there are some 57 separate categories of effluent limitations in the steel industry guidelines. How those are interpreted and applied to any specific plant when some treatment facilities will include several, if not dozens, of those subcategories is very difficult.

In addition to that, the fact that even though we have 57 different subcategories in the steel industry, there are facilities in our plant that aren't covered by the guidelines, and the water from those facilities is treated in the same facilities. So it takes a regulator a substantial time to take the guidelines, take into considera-

tion other noncontrolled or nonregulated under our guidelines sources, and put those into an effluent limitation that would be applicable to our discharge.

Senator CHAFEE. It is my understanding that several of the companies are very close to complying with BAT at this time in their major facilities; U.S. Steel, for example. Am I mistaken in that?

Mr. WEST. We are. I think in a lot of cases we have facilities that have the capability of achieving the effluent limitations guidelines as they were finally adopted. In many cases, we don't.

Senator, I think it would be good to go back to the fact there has even been a substantial change in the BPT limitations from what was applied to the steel industry in the midseventies. So if we designed facilities in the midseventies to achieve BPT limitations as we knew them then, in some cases those facilities are not in compliance with even the newly adopted BPT limitations. So we have to add an add-on facility to get those facilities into compliance with the BAT limitations and in some cases even with the BPT limitations.

Senator CHAFEE. Here is our difficulty, Mr. West. I read about your problems in the steel industry, and we recognize that. I don't think anybody is going to suggest your problems flow from environmental restrictions in the steel industry. I think they flow from a host of reasons.

The steel industry, for one reason or another, entered into very, very lucrative contracts with its employees. I think the employees are now the most highly paid in the world, and completely noncompetitive. You failed to modernize your plants to keep pace with the other countries in the world. So you have a lot of problems. We recognize that.

At the same time, where extensions have been given, as, for example, the Clean Air Act stretchout, the steel companies who were in here testifying about the tremendous demands on capital for them to meet the requirements particularly of the Clean Air Act, then they proceeded to go out and buy oil companies and savings and loan businesses. It did undermine the confidence that certainly this committee, at least this Senator, has in the steel industry meeting the deadlines or the extension of the deadlines that they came before us to seek. We had a host of steel executives in here on the Clean Air Act. All of them bemoaned the fact that they just didn't have the capital to meet the requirements. But they seem to dig up capital to buy oil companies. So it is something like crying wolf, I thought, at least from my experience in listening to them.

Now, what do you have to say about that? That was a good opening for you.

Mr. WEST. Can I ask for adjournment or something?

Senator CHAFEE. Seriously, if we are going to give extensions, shouldn't we require that the money be spent for cleaning up pollution rather than diversifying?

Mr. WEST. Mr. Chairman, this is a very difficult situation. First of all, I can't really respond to the oil situation as such or the savings and loans because——

Senator CHAFEE. I knew you would have great trouble responding.

Mr. WEST. That is not my company, so I will let others respond to that.

Senator CHAFEE. It didn't happen on your watch.

Mr. WEST. But I would say this: Our economic system is such that if we cannot put money into steel facilities and get some type of return, naturally you are going to see a diversion away from such investments. And I think that environmental control is one of the issues here, and I would agree with you it is not the only issue.

Senator CHAFEE. I don't even think it is a major issue.

Mr. WEST. I would say it is a significant issue. If you look at our capital expenditures, and they are significant, you would have to concede that. My own company at one time devoted over 35 percent of our capital expenditures in a year to environmental control.

Senator CHAFEE. What happens in other countries, Mr. West? You are the Environmental Director, so you must get around. What takes place with the Japanese steel industry, for example, with its water discharges or air discharges? Are you familiar at all?

Mr. WEST. I am familiar with the Japanese plants. I have been through several of them. They do have very impressive environmental control facilities. But the environmental control facilities are on facilities that were just recently built. They have very extensive controls. We have used some of that same technology in the United States. But the Japanese seem to solve a lot of their environmental problems by abandoning existing plants and replacing with a new process that has extensive environmental control facilities on it.

Senator CHAFEE. I don't think that is prohibited to U.S. plants. They are permitted to modernize.

Mr. WEST. Yes, I agree. If we had the capital to modernize, that is the best way; as I said in my statement, the most efficient way of moving toward a cleaner environment is to build new facilities. Number one, they are easier to control because you can design a lot of things into the process itself that eliminates some of the problems encountered with retrofitting environmental control facilities onto old plants, which were never really designed to incorporate those types of facilities.

Senator CHAFEE. The problem we have is that it is my understanding that some 60 percent of the steel industry will be in compliance at the end of the 3-year period. Therefore, they have made the effort. They have made the expenditure. Obviously it can be done. The question always comes up, is it fair to give an extension to those who have failed to comply? Obviously there is some economic advantage for them in having the extension, not having made the expenditures. It gives them an economic advantage over the companies that have complied. I am not sure that that is fair.

Mr. WEST. Well, from a philosophical standpoint, if somebody is recalcitrant and uses an extension of this type to more or less escape a requirement that they had, I would have to agree with you. However, I don't believe that somebody should be put into a position of absolute noncompliance through no fault of their own. I think that is what will happen in several cases or in many cases if we don't get an extension that allows us the 42 months.

Senator CHAFEE. Why would it not be through fault of their own?

Mr. WEST. Well, first of all, I think it would be premature for anybody to design the facilities for these BAT limitations that are being imposed until they know precisely what are the specific effluent limitations for that plant.

Senator CHAFEE. Are you saying you don't have your guidelines yet?

Mr. WEST. No. We have the guidelines, but how those guidelines are translated into a specific effluent limitation at our discharge point is a very cumbersome process. We have multiprocesses going into one treatment plant. We have facilities that are not covered by the guidelines which utilize the same treatment facility as those regulated by the guidelines. You can't assume that we would be allotted zero pollutants for these nonguideline facilities. The agency has to make some type of determination on what would represent a BAT or BPT for those nonregulated facilities.

For example, we have boiler plants in every one of our plants. There is nothing in the guidelines that applies to the steel industry that has any limitation for boiler plants. So somehow the agency or the State, if it is an NPDES approved State, has to determine how much they would allow us for that type of facility.

There is a whole host of processes in the steel industry that are not under the guidelines, even though there are 57 subcategories.

Senator CHAFEE. OK. Let's go on with Mr. Banks. We will get back to you. We have to move forward with this panel.

All right, Mr. Banks.

STATEMENT OF J. TAYLOR BANKS, SENIOR STAFF ATTORNEY, NATURAL RESOURCES DEFENSE COUNCIL

Mr. BANKS. Good morning, Mr. Chairman.

Senator CHAFEE. Good morning.

Mr. BANKS. I will be very brief.

Let me begin simply by agreeing with two premises that you have made clear in your remarks this morning and in your bill. First, the environmental community does not have a disagreement over whether to extend this deadline. It seems clear that the deadline must be extended—principally because EPA is far behind the deadline you established in the 1977 amendments for issuing the regulations covering industrial sources. Second, we agree with the concept of your bill that would put in place a rolling compliance period of 3 years as opposed to a fixed deadline. We think that approach makes a lot of sense because EPA is issuing these regulations over a 3-year period from January 1981 to March 1984. Any fixed date is going to be too long for some sources and too short for others. The existing pretreatment requirements of the statute have a rolling compliance period. We think these BAT requirements ought to be placed on the same footing.

What remains, and what we think is important, are two questions. The first you posed earlier. What should be the length of the compliance period? In that regard, we think Congress needs to do two things: Not only set an outside limit on the compliance period, but also direct the permit writers that in setting individual schedules in a permit they must require compliance as expeditiously as possible within the outside limit.

The main question, then, is the ultimate length of the period. We agree that 3 years from the promulgation of regulations is the appropriate period of time. That is the period that the act now provides for pretreatment standards.

I have surveyed the House and Senate hearings from last summer, as well as the position papers of virtually every interested party who has come before Congress on this question, and it seems to me that on the record there is near unanimity on the notion of a 3-year compliance period.

In testimony last summer before your subcommittee, EPA agreed that 3 years probably was the most any source would need. Dr. Hernandez said it. Mr. Eric Eisness, Assistant Administrator for Water, said it several times. The Edison Electric Institute, the American Petroleum Institute and the American Consulting Engineers Council all have said for the record that 36 months is the appropriate outside limit. The National Association of Manufacturers and the Chemical Manufacturers Association have proposed that the ultimate compliance date be 1987, which for their industry translates into a 3-year compliance period because their regulation is expected in March of 1984.

It seems to us that the steel industry is the leading proponent of a longer compliance period—up to 42 months. And for that reason I have taken the trouble to question the EPA permit writers who are responsible for issuing permits to this industry and for overseeing the permits issued by States for this industry. Those gentlemen are now writing permits which, on the average, require compliance by steel facilities within 18 to 30 months. Most companies are agreeing to terms for those permits that would require compliance by July or perhaps as late as October 1984. The steel industry's BAT regulation requires so little major construction beyond what was required at the BPT stage that past experience is not a useful guide in assessing how long this industry might require in the future. The fact is that BAT in most instances amounts to an add-on. And the permit writers with whom I spoke said to me that there probably are only four steel facilities in the entire country that would require more than 36 months to meet their obligations.

We think that is hardly a basis for legislation going beyond 36 months, and if there is a need to deal with those four facilities in providing additional time, EPA has the authority to do that in the present law under section 309.

The second important question is what should be extended? The various proposals before this committee and pending in the House are quite different as to which requirements would be extended. Your bill would extend BAT and BCT. Senator Randolph's would add several things to that, and one of those is very important. S. 432 raises the issue of whether permits written on a case-by-case basis—without effluent guidelines—ought to be subject to the same sort of extended deadlines. These are commonly referred to as "best engineering judgment" permits, or BEJ permits, since the permit writer—as Mr. West pointed out—uses his best judgment in defining what will be the limitations.

Senator CHAFEE. One more minute, Mr. Banks.

Mr. BANKS. Certainly.

This proposal raises two questions. First, should such permits be covered at all? Clearly those negotiated prior to enactment of any amendments should not be covered. Those permittees negotiated in good faith both the limits in those permits and the schedules by which they would be required to comply. Those dischargers made informed judgments, and they made commitments with which they believed they could comply. Any permit written in 1982 or, indeed, early 1983 embodies that sort of a judgment. We see no good reason to upset it.

Second, if the legislation is to cover an extension for future case-by-case permits, we think it should not be 36 months. The standard 3-year compliance period which has wide support among interests addressing this issue, includes the time it takes to write a permit—on the average, about 6 months or less.

If an extension is to be given for case-by-case permits, Congress does not need to include that 6 months because the permit is finished and that time need not be provided. We recommend that if Congress considers extending the time for such permits, the period should be different; in fact it should be 30 months and no more.

Thank you, Mr. Chairman. I will conclude at that point.

Senator CHAFEE. All right, fine. Thank you very much, Mr. Banks.

STATEMENT OF ROBERT C. FORNEY, EXECUTIVE VICE PRESIDENT, E. I. du PONT CO., ON BEHALF OF THE CHEMICAL MANUFACTURERS ASSOCIATION

Mr. Forney?

Mr. FORNEY. Thank you, Mr. Chairman.

I am Robert C. Forney, an executive vice president of the E. I. du Pont Co. Today I am representing the Chemical Manufacturers Association [CMA]. We appreciate the opportunity to testify before you today.

As you suggest, we have submitted a written statement. I will confine my comments to the matter of implementation of best available technology, or BAT, and what we believe is a need to permit case-by-case modifications of BAT.

This is a major issue to the chemical industry as we estimate capital expenditures for our industry in excess of $1 billion for accomplishment of BAT. EPA has estimated that capital costs for compliance with the recently proposed BAT effluent guidelines for just the plastics, synthetics, and organics part of our industry at over $500 million, with annual operating costs in excess of $250 million.

Basically we believe that improvements in water quality, not the number of dollars spent, is the means by which we should begin to measure success or failure in this effort. We feel a need to provide a means to avoid treatment for treatment's sake where water quality is already satisfactory.

Before discussing our concept of case-by-case BAT modification in greater detail, some brief background is in order to show why we feel this concept makes sense.

As you know, in 1972 the Congress adopted a bold new approach to water pollution control involving stringent technology-based

standards. The first step was the installation of best practicable technology, or BPT. We are pleased to report that the chemical industry has successfully met the BPT requirements. The cost has been considerable. Capital expenditures have been in the neighborhood of $3.7 billion for CMA companies, and annual operating costs are substantial.

Most importantly, however, BPT, as expected, resulted in significant benefits. For example, salmon have returned to the Connecticut River and I understand bass are being caught in the Potomac at the Watergate. But what was not expected was BPT's effectiveness on priority pollutants. This was a pleasant surprise. Control of 129 priority pollutants became an important issue about the time that industry had installed BPT and had it operative. Du Pont felt a need to assess the presence and concentration of these pollutants in our waste streams and, consequently, we conducted a study in 1978 to evaluate 72 of our plants for priority pollutants. The results were quite encouraging. The average plant detected only 13 of 129 materials in its outfall. Concentration levels were low. Ninety-eight percent of the 36,000 analyses were below 100 parts per billion. The success of BPT on priority pollutants as well as on conventional pollutants raised questions in our minds regarding the need for across-the-board application of BAT.

The real issue, of course, is what happens in the receiving water, the rivers and streams into which the materials are discharged. Our feeling within CMA was there wasn't a wide-scale priority pollutant problem; however, very little data were available. Du Pont then decided to do some analyses at its Beaumont plant, a typical large chemical plant on an industrialized river. The plant is on the Neches River in southeast Texas. It is currently meeting BPT. The plant faces the prospect of more stringent BAT limits requiring installation of further controls, such as activated carbon, at a cost of about $5 million. We analyzed for the list of priority pollutants upstream, in the mixing stream, downstream, and in the actual effluent from the plant, and the results were very encouraging. Only 27 priority pollutants were found anywhere at any level, and the concentration levels in the river were in the low parts per billion range, upstream as well as downstream of our discharge point.

Based on these data, Du Pont concluded that, first of all, the plant is a negligible source of priority pollutants. Second, that this river segment does not have a priority pollutant problem. And third, further levels of treatment may not accomplish anything significant. The $5 million may be wasted.

Since water quality standards for priority pollutants have not yet been established for the Neches River, we believe it is important to combine physical measurements of this type with an aquatic toxicological evaluation of the river and the organisms in it to assure no further treatment is needed.

Situations like this provide the basis for our belief that some mechanism is warranted——

Senator CHAFEE. One minute.

Mr. FORNEY [continuing]. To avoid the nonproductive expenditure of money for BAT where it can be shown no environmental benefit will result.

I would like to stress CMA is not attacking the concept of BAT per se. The BAT modification is not a loophole and it does not involve any retreat from current control. We envision that the modification would be sought on a case-by-case basis, with the burden of proof on the company involved to make the proper showing. Such a showing would have to be based on good analytical and aquatic toxicological data. The discharger would have to show either that water quality standards are already being met or that its presently proposed discharge levels will not pose an unacceptable risk of harm in the receiving waters based on the designated use of that water. The final decision would be in the hands of the permitting agency to decide what further decrease in discharge levels, if any, is necessary. We really feel this is a workable and reasonable approach.

Thank you very much.

Senator CHAFEE. Thank you very much, Dr. Forney.

Mr. Blower?

STATEMENT OF KENNETH E. BLOWER, MANAGER, ENVIRONMENTAL PROGRAMS, STANDARD OIL CO. OF OHIO, ON BEHALF OF THE AMERICAN PETROLEUM INSTITUTE

Mr. BLOWER. Thank you, Mr. Chairman. I am Kenneth Blower, manager of environmental programs for Standard Oil of Ohio. Today I am representing the American Petroleum Institute as chairman of API's water programs committee.

API appreciates the opportunity to present its views on the need to extend the deadline for complying with the Clean Water Act's effluent guidelines. We believe, however, that this is only one of a number of issues Congress should address as it reviews the Clean Water Act.

Since we have discussed some of the background of the deadline issue, I would like to move directly to two examples from our industry that address the compliance deadline issue.

Industries whose limitations have not been promulgated by July 1, 1984, may not have adequate time to comply. For example, EPA's final BAT guidelines for the oil and gas extraction segment of the petroleum industry will probably not be issued until after July 1984. As a result, this segment of the industry may not have enough time to comply with the dates in S. 431.

For the refining industry, EPA promulgated BAT guidelines in October of 1982.

Senator CHAFEE. I wouldn't spend time on that. You are going to get an extension. I don't think there is any question about that. The question is how long.

Mr. BLOWER. Perhaps I could indicate the nature of the extension we feel is warranted.

We would recommend that specific dates for compliance with both BAT and BCT limitations be deleted. Instead, we support an approach similar to that of S. 432. That is, compliance should be required no later than 36 months from the date BAT and BCT limitations are established.

I would like to close with a couple pressing items that have not been covered so far.

I would like to add that this issue of compliance deadlines is really not our only issue nor our main concern with S. 431. API is especially concerned with 431's water standards provisions. Section 6 of the bill would require States to maintain as a minimum a specific water body's designated use that existed on January 1, 1983. This language we feel would severely constrain the flexibility that the States need to effectively manage their water quality programs.

We are also concerned that S. 431 does not address a number of current provisions in the Clean Water Act that need to be evaluated in light of experience gained over the last few years. Our views on S. 431 and some other clean water issues are provided in our written testimony, which we have submitted for the record.

In summary, during the last decade substantial progress has been made in cleaning up the Nation's waterways. Our knowledge of the causes and controls of environmental pollution has increased substantially. On the one hand, advances in technology have meant that in many cases pollution control methods have been more effective than most people thought possible. A good example of this is the refining industry's success using BPT treatment to effectively remove toxic pollutants from wastewater discharges. We believe that the act should be amended such that it is clearly acceptable to set BAT equal to BPT where BPT adequately controls the discharge of pollutants.

On the other hand, some procedures have created regulatory problems and hampered the act's effectiveness. The act's fixed compliance dates have not been able to reflect the complexities and delays that occur in the real world as programs are implemented. To insure continued progress, the act should be modified in light of this knowledge and experience.

That concludes my oral statement. Thank you for the opportunity.

Senator CHAFEE. All right. Thank you very much, Mr. Blower.

Mr. Gerwert?

STATEMENT OF PHILIP E. GERWERT, MANAGER, WATER POLLUTION CONTROL, GENERAL MOTORS CORP.

Mr. GERWERT. Good morning, Mr. Chairman, and members of the subcommittee. I am Philip Gerwert, manager, water pollution control, General Motors environmental activities staff. I will summarize from my prepared text, which we have submitted for the record.

We welcome this opportunity to review with you the effects of the categorical pretreatment standards on our 140-plus plants, over 100 of which are classified as integrated facilities. Before doing that, however, let me state that General Motors recognizes the great improvement in the quality of the Nation's waterways which has resulted from implementation of the Clean Water Act, particularly since 1977. The act has been and can continue to be successful.

Our testimony today will address two points where it appears the consequences of the act are unintended. First, it has been generally acknowledged that compliance with best available technology cannot be achieved by the dates currently specified in the Clean

Water Act. The second point centers on the lack of equitable, practical pretreatment standards for integrated facilities.

General Motors supports S. 432 because it would provide necessary relief from the harsh consequences of the 1984 BAT deadline in a reasonable way. In addition, we commend Senator Randolph for recognizing in his introductory message to S. 432 the compliance problem faced by integrated facilities. The solution he suggests would correct the problem faced by one major segment of the industrial community, that which utilizes integrated treatment facilities to accomplish the necessary control in a more economical way. The approach suggested by Senator Randolph can be made without any far-reaching substantive changes in the act and without sacrificing water quality.

Under the current regulatory program for the control of pollutants into POTW's, industries must comply with the specific categorical pretreatment standard which reflects actual operations performed at a given facility. Large diverse complexes, typical of American industry, with multiple sources and various kinds of manufacturing operations on the premises of a single facility, are subject to as many different standards as there are individual categorical waste streams within the confines of that plant.

Of the 140-plus General Motors facilities which discharge processed wastewaters into POTW's, 94 will be required to comply with the electroplating pretreatment standards by June 30, 1984 as well as subsequent pretreatment standards yet to be promulgated. For efficiency purposes, it is clear that one unit of control equipment should be installed on a combined waste stream prior to discharge to the POTW.

Contrary to what one would expect, there is an additional difficulty we face. Compliance cannot be determined by direct comparison of the pollutant concentration levels in the discharge with the pollutant limitations established by the various regulations. In an effort to accommodate these integrated facilities, EPA provided a mechanism for determining compliance, the use of a combined waste stream formula. While the combined waste stream formula may be appropriate for some integrated facilities, that is those for which all categorical standards have been issued, it does not resolve the problems faced by all integrated facilities for the following reasons.

First, only after promulgation of the last applicable standard can we assess with any degree of certainty the technological feasibility of meeting the combined pollutant limitations, because the combined waste stream formula relies on published standards for each category. In short, we face a moving target.

Second, the likelihood exists of having to alter over and over the design of the combined industrial wastewater control equipment due to a subsequently issued categorical standard. As a result, a substantial amount of moneys for such facilities could be misspent.

In order for our facilities to comply with the current requirements of the categorical pretreatment standards, General Motors has estimated it will require capital expenditures of about $350 million. We also have estimated that about $200 million of this investment could be avoided if the law provides for the designation of integrated facilities as a distinct source category. Such a remedy

for the problem of integrated facilities was noted by Senator Randolph in his remarks accompanying the introduction of S. 432.

In summary, General Motors remains committed to controlling the discharges of pollutants to our Nation's waters. From 1969 to 1982, to cite a period for which GM has recorded its expenditures, we have spent approximately $879 million for water pollution control. Future control should be instituted in the most technologically feasible and cost-effective manner. With regard to pretreatment, this can be accomplished with the modifications to the Clean Water Act suggested by Senator Randolph and endorsed here today by General Motors. Again, this can be done without impairing the quality of the receiving water.

We urge that the committee act on our recommendation to clarify the intent of Congress with respect to establishing a separate categorical source and nonconflicting compliance dates for integrated sources.

Senator CHAFEE. Thank you very much, Mr. Gerwert.

I think the problem with integrated facilities is a difficult one. We appreciate what you said about it.

How big a problem is this? Take your plant. You have what, 65 plants? What did you say, 132 plants?

Mr. GERWERT. In the case of our 140 General Motors plants, which are located in 77 cities, in 27 States, we already are affected at 94 of these by the electroplating standards.

Senator CHAFEE. Is the integrated source problem a concern for the rest of you? How about you, Mr. Blower?

Mr. BLOWER. I think it would vary from company to company within the institute. But speaking for Sohio, we do have a refinery coupled with a petrochemical operation coupled with a fertilizer operation. So there is no question that we do have integrated facilities that would have this problem.

Senator CHAFEE. What do you say about all of that, Mr. Banks?

Mr. BANKS. Mr. Chairman, this question is linked closely with the subject of the combined waste stream formula, which is contained in an existing EPA regulation. At the moment, it is the subject of extremely complex litigation in the Third Circuit U.S. Court of Appeals in Philadelphia.

Senator CHAFEE. Is that the GM suit?

Mr. BANKS. It is a number of litigations combined together. GM is a party. We are a party. Moreover, the issue also is before EPA in the administrative context on a petition to change that regulation.

It is not a simple or easy subject, but in essence it comes down to this: Does the combined waste stream formula being discussed here treat industry fairly and at the same time require prompt progress toward cleaning up these toxic discharges? We conclude that it does, that it makes assumptions which in fact are quite generous to industry.

We believe EPA and the U.S. Court of Appeals will agree with that, and that we will see progress toward getting all of these integrated facilities cleaned up.

I must say the next panel, on pretreatment, includes the real experts on this subject. I hope you will ask Ms. Dubrowski to address the same question.

Senator CHAFEE. It does seem to me that Mr. Gerwert puts forth a pretty good point when he says that they have a moving target, that they get their guidelines for some pollutants but they don't get the total, and thus they don't know how they have to design their plant.

Mr. BANKS. The way this formula works is essentially this: For those waste streams that have yet to be regulated, EPA makes an assumption that they can be treated to about the levels of waste streams that have been regulated. And there is, to my knowledge, no evidence that subsequent regulations, which are in the planning stage right now, are going to impose more or less stringent requirements of any major magnitude. And EPA has asked this industry to provide specific examples of how they might be harmed by subsequently promulgated regulations, and to my knowledge no examples have been given.

Senator CHAFEE. What do you say about that, Mr. Gerwert?

Mr. GERWERT. We have met with the Agency. As Mr. Banks did explain, the problem from our perspective is with the combined waste stream formula. It does make an assumption that when you apply technology to a nonregulated stream, you will be able to comply with the final value. However, since it does rely upon flow-rated averages, when those final numbers do become promulgated for other source categories, there is the strong potential in my view that technologically you may not be able to attain that number. On the contrary, if you design facilities in the interim to comply with the mathematically generated effluent restriction; and in the middle of construction a new category comes out. You may have installed a portion of that facility which could be obsolete. That is one of our principal concerns, the misspent dollars.

Senator CHAFEE. I think you have a problem that you have brought to our attention. I am sure the other questioners will ask about it. My time is up. Senator Randolph?

Senator RANDOLPH. Thank you very much, Mr. Chairman.

Mr. West, I will ask you specifically a question and perhaps others might want to participate in answering also.

Mr. West, in your statement you indicate support for the proposal that I have advanced on the deadline extension for integrated facilities. Does the steel industry have facilities affected by two or more categorical pretreatment standards issued at different times?

Final guidelines were, as you know, set forth for the steel industry in May of 1982. I wish that you might give us your assessment of progress in achieving compliance. Are any of the industry's facilities approaching full compliance?

Mr. WEST. The answer to the first question is yes, we have facilities that are affected by more than two pretreatment standards. As your question refers to facilities that are in compliance, yes, we do have facilities in compliance with the final effluent guidelines. The chairman mentioned two of them, in Massillon and Canton, Ohio. They are in some regards a special case in the fact that these are not integrated plants. In the case of Massillon, it is a rolling facility. In the case of Canton, it is an electric furnace shop. It does not contain coke plants, blast furnaces, or BOF steelmaking facilities.

We do have other plants that meet the guidelines. There are some that I think with minor modifications can meet the guidelines.

I wasn't implying we should automatically extend for 42 months the BAT limitations for every single facility because I think we can meet the effluent limitations guidelines by July of 1984 in a lot of cases.

Senator CHAFEE. Excuse me, Senator Randolph.

Is Congresswoman Johnson here?

Ms. JOHNSON. Yes.

Senator CHAFEE. Do you want to come forward?

Why don't you proceed, please, Senator Randolph.

Senator RANDOLPH. Thank you, Mr. Chairman.

Could you give us information on those other companies, if you feel that that is valuable for the record?

Mr. WEST. Yes, we will submit that. [See p. 696.]

Senator RANDOLPH. I thank you very much.

Mr. Banks, I have been involved in the creation of water pollution control legislation since the beginning of our environmental program. I think you know of my commitment, as others on this committee and in the Senate, to programs to bring clean water into being.

As I looked at your statement, especially on page 5, you project a total amount of toxic discharges to be an additional 20 million pounds per month. These are disturbing figures. I am not committed fully to the language of Senate 432 as it is currently written. I shall work with you and others in the development of a reasoned approach in what is a complicated program. Your figures are from the Environmental Protection Agency. Perhaps I can ask other members of the panel if they agree with these projected figures for the industries they represent.

Mr. BANKS. Senator, if I may just set the record straight a bit, those are annual figures rather than monthly. They are, nevertheless, quite high, and as you say, they are based on EPA estimates of the amount of toxic pollution that would be discharged under the various kinds of extensions we are discussing here. In your bill, because the extension is triggered by enactment of amendments, it becomes very important when those amendments are enacted. The later they are enacted, the worse the picture gets.

Senator RANDOLPH. Thank you very much.

Mr. Gerwert, I think that members are concerned, I am concerned, about the possible breadth of the so-called integrated facilities proposal. If you as well as other panelists react to the limiting, let's use that word, of the integrated facilities category to those which have electroplating and metal finishing standards, what would be the application?

Mr. GERWERT. Sir, from our viewpoint, if we were to limit it strictly to electroplating and metal finishing, it would resolve about 60 percent of our current difficulties with the compliance schedule. However, it will not resolve the other fundamental question of misspent money when we are subsequently comfronted with standards for other categories of sources, i.e., the moving target problem. But about 60 percent of General Motors' problem would be minimized.

Senator RANDOLPH. Thank you.

Mr. Forney, you are proposing an authority for waivers or modifications using the best available technology as the wording requirement for toxic pollutants. I cannot assure you of the prospects of having such a waiver adopted. I am not sure. There is knowledge that is limited about the safe levels of toxic pollutants in aquatic ecosystems, particularly for what I would call chronic exposure. There is also difficulty to relate acceptable water quality levels of toxic materials to specific discharges. That would be the river systems I would call complex in nature. The water quality protection you propose is not a high enough standard. I would believe that it would be difficult for us to administer; that is, the test which you have set forth. With toxic pollutants I think we have to be very cautious, very conservative in our approaches. I do not believe that waivers should be considered, at least at this time.

Mr. Banks, would you, or other panelists, address yourself to Mr. Forney's suggestion?

Mr. BANKS. Yes, Senator, I would be pleased to address it.

As you will recall, in the amendments of 1977 Congress considered this question carefully. You were instrumental in a very fundamental decision by Congress at that time that variances would not be provided for toxics. The reasons were essentially as you have outlined. The tools are not there to make these difficult scientific judgments. Less than half of the States have water quality standards for any but a few toxics. EPA has estimated that it may take at least another decade to develop the analytical tools needed to make the predictions Mr. Forney is recommending. And EPA has said that even if it were able to make those judgments, the process is so resource-intensive, requiring something on the order of 600 workyears per year to process these variance requests, and that so few would qualify, it would largely be a waste of the taxpayers' dollars.

We stand firm behind the commitment Congress made with your leadership in 1977 to prevent that from happening.

Senator RANDOLPH. Mr. Forney, if you would comment.

Mr. FORNEY. Senator, I think we would certainly agree that the Nation and our industry should be very cautious and conservative in proceeding in this matter. We do not disagree with that at all. I believe that the primary element of disagreement I would have with Mr. Banks is that we believe that great progress has been made in the past 6 years since the 1977 amendments in the technological evaluation of these materials and their effect in wastewaters and, in particular, how much has been removed by the installation of BPT. That is something we didn't know then. All we are asking for is the opportunity to be able to come before the permitting authority and attempt to demonstrate to that permitting authority that the information is in hand that would indicate that what we propose is satisfactory.

We are not asking for any across-the-board elimination of BAT. We just want an opportunity to be able to convince people that we have already done the job.

Senator RANDOLPH. Thank you, Mr. Forney.

Mr. BLOWER. Sir, may I comment for the American Petroleum Institute?

Senator RANDOLPH. Yes. But just for a moment.

Mr. Forney, I remember, I was asking my assistant, Mr. Cummings, we talked about this in my office, did we not, sir?

Mr. FORNEY. Yes, we did, sir.

Senator RANDOLPH. You said then what you are saying today?

Mr. FORNEY. Yes, sir.

Senator RANDOLPH. And I cannot agree with you.

Mr. BLOWER. Sir, the American Petroleum Institute also supports the need for a BAT waiver or modification. I would like to mention two points that to some extent have already been mentioned, but I believe they are important.

One is that we don't believe that this is a wholesale substitute for the BAT requirement. Rather, it is in many cases a pollutant-by-pollutant and case-by-case analysis that would lead to such a waiver. In some circumstances we may need only a change in one or two of a host of pollutants under this waiver provision.

Second, I think it is important to note that from our studies it appears that toxicity of pollutants varies greatly depending upon the physical and chemical nature of the receiving water.

So I think there is a logical need for having the capability, perhaps seldom used and carefully used. But we do believe it is important to have the capability to address that in some limited cases.

Senator RANDOLPH. Thank you, Mr. Chairman.

Senator CHAFEE. Thank you, Senator Randolph.

Senator Mitchell?

Senator MITCHELL. I would like to follow up on one of Senator Randolph's questions just to make certain of the answer. Mr. Banks responded to a question regarding the figures contained in his statement and a table included therein. Senator Randolph asked if anybody disagreed with him. There was no response. I would like to get an affirmative response on the record.

Mr. West, do you dispute the figures in any way that are contained in Mr. Banks' statement?

Mr. WEST. Senator Mitchell, I don't have any information to dispute them or to support them. I am just not that familiar with the numbers. [See p. 696.]

Senator MITCHELL. Mr. Gerwert?

Mr. GERWERT. I am not in a position to respond. I am not familiar with the numbers either. [See p. 806.]

Senator MITCHELL. Mr. Blower?

Mr. BLOWER. I have not seen the numbers. We would be pleased to respond once we have had a chance to study them.

Senator MITCHELL. Mr. Forney?

Mr. FORNEY. We would be pleased to respond in writing. I have not seen this table. [See p. 762.]

Senator MITCHELL. Then I would ask all four of you to review the table contained in Mr. Banks' statement; and if you dispute the figures in any way, we would like to have that in writing from you, with whatever documentation you have. And, Mr. Banks, of course if there is any dispute, you would be provided with the information and accorded the opportunity to rebut.

Mr. BANKS. Thank you, Senator.

Senator MITCHELL. I think that is important, because as one who was not present at the time the law was either initially written or

amended, the first reaction is what is all the argument about? We are only talking about a few months here. What is the difference between something that started in 1972 being completed in 1987 or 1988; 36, 40, 42 months, and so forth? It sounds like not much to be arguing about. Mr. Banks puts it in a different context and one that lends to it some significance; that is, in the quantity of toxic discharges and other discharges to be released during that period of dispute. And therefore, if his information is not correct, we should know that. That is why I would like to have you make that kind of analysis.

Now, Mr. Forney, in your written statement you indicated support for extension of the deadline for compliance with BAT and BCT limitations to July 1, 1988. That is on page 26 of your statement. You express an opinion that is contrary to that, Mr. West.

Mr. WEST. We were supporting Senator Randolph's bill 432. But we did not suggest a 1988 date.

Senator MITCHELL. You don't?

Mr. WEST. No.

Senator MITCHELL. So you do not agree with Mr. Forney on that.

Mr. Gerwert, how about you?

Mr. GERWERT. We support the provisions of S. 432.

Senator MITCHELL. Mr. Blower?

Mr. BLOWER. We are supportive of S. 432. We do not support a final date. We would argue for the 36-month rolling period with no final date.

Senator MITCHELL. S. 432's deadline can be divided into two components. The first is 36 months following promulgation or 42 months after enactment, whichever occurs later. If you accept the premise of the first component, 36 months after promulgation, what justification is there for the second component, 42 months after enactment, for those industries with respect to which promulgation has already occurred?

Mr. FORNEY. Can I speak to that?

Senator MITCHELL. I am going to ask everybody to speak to it.

Mr. FORNEY. It really gets into the matter of this combined standard situation, I think, Senator. While we may not be subject as much to that as the GM plants, the fact of the matter is many of our plants are involved in standards finalized in the middle of last year and are at the same time subject to standards that will not be finally promulgated, it is expected now, until June of next year, a 2-year gap.

Now it is important to us, my company and my industry, that we comply with these standards in the most efficient manner possible. So we share the same problem outlined by GM. The only difference perhaps is that the major impact on us will come from the standards that are to be promulgated in June of next year. There is a lesser effect from the standards already promulgated.

Senator MITCHELL. Mr. Forney, then that is an argument for the 42-month after enactment limitation with respect to such facilities. The legislation does not so limit it. Is there a comparable argument for any facility in which that circumstance does not obtain?

Mr. FORNEY. I could not make that argument, no.

Senator MITCHELL. You could not. So therefore, the only conceivable rationale for extending the 42-month provision after enact-

ment would be with respect to facilities which you have just described.

I will get to you, Mr. Banks.

Mr. FORNEY. That is basically our problem. The main thing that we face are standards that are not to be finally promulgated until the middle of next year. Now, again as Mr. West said, it takes a while after those standards are promulgated before the permits are worked out for the individual plants and then the time clock starts for 3 years. We just think, as we indicated in our testimony, that from a practical point really this thing isn't going to get done until 1988.

Senator MITCHELL. Mr. Blower, would you like to comment on that?

Mr. BLOWER. I would only shed one more piece of information about the complexity of these deadlines and compliance periods. We have in the refining industry established BAT guidelines and they were established in October 1982. So one would argue 3 years from that date, or 42 months from that date, would be fine.

However, the NRDC has filed a petition in the D.C. Court of Appeals for review of these guidelines. While we think they are legally and technically sound, we can't at this time predict just how that will turn out. So the inclusion of any final date in our view in the legislation is really not expressing what happens in the real world application of these regulations. We just need when they are established and we need some time to put the equipment in. It is really that simple. Whether it is 1987, 1988, or 1989, it takes a long time to install a large waste under treatment facility.

Mr. GERWERT. Senator, we understand that some of our major suppliers do have a problem with compliance and that would require perhaps a consideration of extension or requirement of 42 months from date of enactment. However, I would also like to comment if I may, very briefly on the permit issuing process and the relationship of tying a date or some sort of other consideration by the subcommittee that would accelerate the amount of time that it takes a permit issuing agency to issue a permit.

The permit issuing process in itself is operating on the discharger's time and can result in a discharger failing to comply with a finalized statutory requirement.

Senator MITCHELL. But you favor that period of time that commenced running from the date of issuance of the permit?

Mr. GERWERT. There should be some consideration for that.

Senator MITCHELL. Until now the consideration has been given to 36 months from the time of promulgation. And if, as you put it, permitting time is on the discharger's time, what would be a reasonable time following issuance of the permit, in your judgment?

Mr. GERWERT. It has been our experience in dealing with best practical technology permits—as well as water quality standard related effluent limited permits—that generally speaking it takes 36 months from initiation and finalization of that permit to design, approval of the plans, and construction of that facility.

Senator MITCHELL. Well, in other words, you are suggesting that this concept of 36 months following promulgation is unrealistically short. If you are saying that it takes 36 months following the issuance of a permit, and the concept here is 36 months after promul-

gation, which is prior to the issuance of the permit, you are saying necessarily that the 36 months after promulgation is too short a period.

Mr. GERWERT. It can be at times. We presume, and our corporation presumes, however, that if a final date is established, there is nothing that precludes the permitting agency from requiring compliance in a time shorter than 3 years if it is technologically feasible and appropriate, depending upon the individual circumstances. We recognize that 3 years is an outside time.

Senator MITCHELL. I would like to get back to my original question and give Mr. West and Mr. Banks a chance to comment on it. What rationale exists for the 42 months after enactment provision except in those areas that Mr. Forney and Mr. Gerwert previously referred to?

Mr. WEST. Senator Mitchell, first of all, the steel industry effluent limitations guidelines were effective in July of 1982. We read the Randolph bill, the two provisions, to be consistent in the fact that if legislation is adopted in mid-1983, and these permits, especially the most complex ones, won't be issued until the latter part of 1983, the 36 months after the date of issuance of the permit and 42 months after the date of enactment are basically the same.

Senator MITCHELL. Well, it might be in your case, but it wouldn't be in many other cases.

Mr. WEST. I agree. I am just stating from the steel industry's perspective that those dates almost merge together. If the scenario is that we have the enactment of legislation in mid-1983 and the most complex permits, which are the ones which take the most time—inevitably we find that the regulatory agencies in some ways play a number of games. They issue the easiest permits first mainly because they can do it quickly and get them out of the way. The more complex ones seem to take longer and they are usually the last ones we receive.

Senator MITCHELL. Is my time up, Mr. Chairman?

Senator CHAFEE. Yes.

Senator MITCHELL. Could I permit Mr. Banks to answer that question?

Senator CHAFEE. Yes.

Senator MITCHELL. Are we going to have another round of questions?

Senator CHAFEE. Yes.

Senator MITCHELL. Mr. Banks, would you comment on that?

Mr. BANKS. Yes, Senator. Thank you.

To begin with, Mr. Forney suggested that the real reason one would need 42 months after enactment is to take care of those situations in which there is an integrated facility. As I read this provision, it largely does not apply to that situation because integrated facilities are a problem principally in the pretreatment program. This bill deals with BAT. That is very different. It does not address the situation Mr. Forney raises except where there may be integrated facilities that are not pretreaters but instead are direct dischargers.

There are a few of those. But they can be dealt with under the permit system with the so-called best engineering judgment per-

mits, which need not rely on effluent guidelines and need not wait for effluent guidelines.

Second, I think I made it as clear as I could in my earlier statement that having surveyed the EPA permit writers who deal with the steel industry, there are only four plants in this country that may need more than 36 months from the date that those regulations became effective. Most of those permits are being written now. And the compliance periods range from about 18 to 30 months overall. Very few of those facilities need to undertake major construction programs, as they did in the last phase of controls back in 1977.

Finally, just a quick comment on the petroleum industry lawsuit. The gentleman suggested that his industry needs a lot of time in order to install large, complex treatment systems. The reason NRDC brought suit on that regulation is that it does not require the installation of large, complex treatment systems. It requires essentially what is in place today, which is going to take very little time to install, if any. Moreover, as you know, if that court should unsettle the effluent guidelines and require EPA to repromulgate them, there will be a new trigger for the compliance period when EPA completes that job.

I trust that is a fair response to your question.

Senator MITCHELL. Thank you. I have some other questions, but my time is up so I will defer to the chairman. Thank you very much.

Senator CHAFEE. Thank you, Senator Mitchell.

Now we have one more panel. If you would like to ask a couple more questions of this panel, now would be the time. I will tell you what I would like to do. I would like to give Congresswoman Johnson a chance to testify. We will keep this panel here. You could make your statement now because I know you are very busy. You can do it right from there. You have a witness here, Mr. Hyner, from Thomastown, Conn. Congresswoman Johnson.

STATEMENT OF HON. NANCY L. JOHNSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CONNECTICUT

Ms. JOHNSON. Thank you very much.

Senator CHAFEE. First of all, we are delighted you came and we appreciate the interest you are taking. So we are glad you came over.

Ms. JOHNSON. Thank you very much, Senator Chafee and members of the committee. I do appreciate this courtesy. I have enjoyed listening to the panel. It is a subject in which I am very interested. I am pleased with the consideration that you are giving it.

I am particularly pleased to have an opportunity this morning to briefly introduce one of the members of the next panel, Mr. Mark Hyner, president of Whyco Chromium Co. Mr. Hyner's company employs 125 people and is both a successful business enterprise in a highly competitive business and reflects in its operations Mr. Hyner's concern for the quality of the environment that we share in Connecticut and also his commitment to cleaning up our rivers in that environment and preserving and increasing that progress.

Mr. Hyner is an exceptional individual and a fine spokesman for the Connecticut Association of Metal Finishers and this morning will offer his experience with and insights into the ramifications of various provisions of the Clean Water Act. I appreciate this courtesy, Mr. Chairman, and thank you.

Senator CHAFEE. Thank you very much, Congresswoman Johnson. We look forward to hearing Mr. Hyner's testimony and know that he will do an outstanding job. Again, we thank you for coming over.

Ms. JOHNSON. I appreciate it.

Senator RANDOLPH. Mr. Chairman, would you indulge me one question?

Senator CHAFEE. Congresswoman Johnson, you know Senator Randolph and Senator Mitchell.

Ms. JOHNSON. Yes.

Senator RANDOLPH. Mr. Banks, I believe you said there might be cases that would require more time. Do you have any objection to referring to these cases by name?

Senator CHAFEE. Thanks again, Congresswoman.

Go ahead.

Mr. BANKS. No objection, sir. Would you like the names?

Senator RANDOLPH. I think it is very important that we face up to these problems and know the specifics.

Mr. BANKS. According to the EPA permit writers with whom I spoke, there are four steel facilities that may require somewhat longer times to comply essentially because they did not do as much as other facilities in the past. Those are two Republic Steel facilities, one in Buffalo, N.Y., and one in Alabama; one Bethlehem facility at Sparrows' Point; and one Armco facility in Ashland. Those are the four.

Senator RANDOLPH. Thank you, Mr. Chairman.

Senator CHAFEE. Senator Mitchell?

Senator MITCHELL. Mr. Chairman, in the interest of time and not to hold up the hearing, I would like to submit several questions in writing that would speed things up. If I could just ask one question.

Senator CHAFEE. Sure.

Senator MITCHELL. Mr. Gerwert, in your statement you have a reference to how much General Motors has spent for water pollution control. I didn't hear the figure you said in your oral remarks. This says $879 million. Is that the same figure?

Mr. GERWERT. Yes. The $879 million addresses our expenditures since 1969 through 1981. The issue that we are raising at this time is relative to integrated facilities and pretreatment standards. We estimate compliance with these standards will cost us $350 million, of which we estimate that if integrated facilities would be designated a separate source category, that we could perhaps avoid $200 million of that $350 million.

Senator MITCHELL. The $879 million, of course, is a lot of money. It is about $65 million a year. Just so we can keep it in proper perspective, would you submit to us in writing a statement of the gross revenues of General Motors during that period of time and total capital expenditures?

Mr. GERWERT. Yes, sir. [See p. 808.]

Senator MITCHELL. It is a large amount of money, obviously. But you are a very large company. I suspect that $65 million a year as a proportion of your gross revenues and capital expenditures is not a particularly large sum of money. It would help us to put it in perspective, I think, as to what we are talking about here in terms of burden on you or anybody else.

Mr. GERWERT. We will respond.

Senator MITCHELL. Thank you, Mr. Gerwert. Thank you, Mr. Chairman.

Senator CHAFEE. I suppose the significant figure isn't just gross, it is also net.

Senator MITCHELL. Give us that, too.

Senator CHAFEE. You can have a big gross and not go very far.

Let me just ask one question of the panel. The legislation we have provides an extension for the so-called best engineering judgment permits. These are permits which have been negotiated between the companies and EPA absent guidelines. Are you familiar with that? Is everyone on the panel familiar with those? Yes or no.

Mr. BLOWER. Somewhat.

Senator CHAFEE. Now, don't these permits include compliance schedules that have been mutually agreed upon? That is what they are, isn't it?

Mr. BLOWER. I would assume most of them do, yes, sir.

Senator CHAFEE. Why should the Congress step in and affect those time tables if they have been negotiated out? In other words, shouldn't we stay out of it and prevent any backsliding by extending the times? What do you say to that, Mr. Forney?

Mr. FORNEY. I would be glad to submit that one for the record. That is not an important issue with my industry at this time, Senator.

Senator CHAFEE. How about you, Mr. Blower?

Mr. BLOWER. I think our comment would revolve around the inclusion of any final date of 1987 or 1988 in the statute in addition to the rolling 36 months. It seems to me that if we would have some of these permits negotiated, that they may be negotiated as a final result and then have a compliance period that might hit a date of 1987 or 1988, prior to the 3-year period being elapsed. So, our concern is having some fixed date in the legislation that would serve to cap any of these individually negotiated permits. We think it would put undue stress on installing equipment far too quickly and far too expensively.

Senator CHAFEE. No. But the assumption is these have been negotiated out.

Mr. BLOWER. Well, if there is a cap that has been capping that negotiation, it is an unrealistic deadline that would be our concern. In other words, if by statute no extension past 1987 is permitted and we are sitting negotiating one of those permits in 1985, there is a cap on the compliance plan of 1987. It is no longer 3 years. It would be 2 years.

Senator CHAFEE. I was really referring to those that have already been negotiated.

Mr. BLOWER. My comments would be more aimed toward future permits of that nature.

Senator CHAFEE. How about you, Mr. Gerwert?

Mr. GERWERT. Senator, if I may, I would like to respond in writing.

Senator CHAFEE. All right. Fine.

Mr. WEST. Senator, may I respond?

Senator CHAFEE. Sure.

Mr. WEST. I think this is very pertinent to the steel industry because effluent limitation guidelines originally adopted by EPA were remanded by the courts. So, by and large, for all steel plants the first round of permits were BEJ permits. That presents a problem for the fact for some facilities in which EPA declined to establish BAT, because of the absence of toxics, we are now facing a revised BPT. We anticipate that in some cases even though we have constructed the BEJ facility it will not be capable of achieving the new effluent limitation guidelines. That presents a problem to us in terms of if the date for compliance right now is capped at July 1984, we won't be able to comply.

Senator CHAFEE. OK, fine. Thank you very much, gentlemen. I appreciate your coming. There will be some questions in writing which we would appreciate your answering promptly.

The next panel is Mr. Kaiser, Mr. King, Miss Dubrowski, Mr. Bernard, and Mr. Hyner. If you would come forward.

Ladies and gentlemen, please take your seats. It is my objective to complete this hearing no later than 12:30.

Mr. Kaiser, if you want to lead off. The subject is pretreatment.

STATEMENT OF CHARLES KAISER, GENERAL COUNSEL, METROPOLITAN ST. LOUIS SEWER DISTRICT, ST. LOUIS, MO.

Mr. KAISER. Thank you, Mr. Chairman, members of the committee. My name is Charles Kaiser, Jr. I am the assistant executive director and general counsel of the Metropolitan St. Louis sewer district. I am here today in my capacity as chairman of the Association of Metropolitan Sewerage Agencies' legislative committee. Accompanying me is Ron Linton, executive director of AMSA, and Lee White, AMSA's counsel, and Mr. George Kerrs, representing Chattanooga, Tenn.

We appreciate the opportunity to present the views of AMSA on Senate bill 431, the Clean Water Act Amendments of 1983, particularly as they relate to the subject of pretreatment. This issue is of extreme importance to AMSA, whose members serve more than 70 million people and thousands of industries in 93 of the Nation's major urban areas and also treat more than 50 percent of the wastewater subject to existing Federal pretreatment mandates across the country.

Mr. Chairman, AMSA member agencies appreciate the critical need to control the discharge of industrial toxic waste to their systems and, accordingly, are the foremost advocates of requiring good pretreatment programs at the local level.

Most of our members now have programs that comply or will soon comply with Federal pretreatment requirements, in many cases, where needed for plant, sludge, or environmental protection.

AMSA has been highly critical of the trend in national pretreatment program development because of the assumption that a single nationwide strategy based on categorical standards is uni-

formly appropriate throughout the Nation. In contrast, we believe that the basic objectives of pretreatment—to protect water and sludge quality, to protect plant operations and to prevent pass-through—relate to site-specific problems and require site-specific solutions.

Accordingly, we continue to recommend an approach that would enable local agencies with effective local programs approved and standards to continue to implement these programs without major procedural and administrative revisions needed to institute national categorical standards. And we do believe that those agencies unwilling to develop their own programs should be required to meet Federal program requirements.

Mr. Chairman, AMSA welcomes the pretreatment initiatives your committee has offered and commends the committee for its attention to this highly complex and important issue. We believe that these initiatives essentially mirror the type of program that we have advocated for some time. We would also hope that we will be able to work with you in a constructive manner to resolve any remaining differences between our respective approaches so that we will be able to move forward as quickly as possible.

With the introduction of S. 431, we believe that we are extremely close to accomplishing our mutual objectives. Obviously, we have some concerns. One concern that is very important to us is the requirement that a local agency be in compliance with secondary treatment requirements to be eligible to develop and implement an alternative local pretreatment system. In our view, the issues of secondary treatment and pretreatment are unrelated, with the result that this condition will only serve to complicate the objective consideration of either issue on its own merits.

We are not suggesting that pretreatment can or should be a substitute for the level of treatment established to satisfy the needs of communities. In our view, treatment plants should be designed to meet these needs. Specific design standards are used to comply with all appropriate State and Federal discharge laws. We believe that pretreatment ordinances should be developed to protect the treatment plant as well as receiving waters and sludge quality. This should be done on a POTW-by-POTW basis. In establishing local ordinances, POTW's should be required to develop pretreatment programs which comply with these needs.

For these reasons, we recommend against secondary treatment as a determining factor in whether a local agency is eligible to establish an alternative local pretreatment system pursuant to the provisions of S. 431.

I would like to state that many of our agencies are under construction of secondary treatment facilities. Some will go on line in the next 6 months to 2 years. Possibly if they were on a schedule for secondary treatment, had an approved pretreatment program, and were meeting their permits as it relates to toxic and hazardous, we feel they should be able to not force industry to go out and spend huge sums of money for meeting categorical pretreatment standards and then when the secondary treatment plant goes on line they might be exempted and the local program go back into effect and huge sums of money would have been wasted.

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With the exception of the secondary treatment issue, we believe that S. 431 satisfies the needs and concerns of AMSA member agencies. We would, however, request clarification in committee report language with regard to some basic and specific subjects mentioned on page 4 of my statement.

I do realize you have a busy morning and you are trying to limit us to 5 minutes. I respect very much, being a lawyer, when the judge says 5 minutes, he means 5 minutes. So we are going to try to do that and then answer questions.

Mr. Chairman, AMSA is currently surveying its members as a means of compiling hard data to demonstrate their pretreatment capabilities. We would like to make that information available from our staff to you and your staff.

Senator CHAFEE. Yes, we would be glad to receive that.

Mr. KAISER. In conclusion, I would like to commend you and members of this subcommittee for your concern and interest in reshaping the national pretreatment program to acknowledge the capabilities of local officials in establishing and implementing necessary pretreatment controls at the local level. We believe that S. 431 acknowledges these capabilities and provides the necessary flexibility to address local problems in a manageable, cost-effective and environmentally responsive manner.

We do believe, however, that all POTW's with good pretreatment programs, regardless of whether they currently operate primary, secondary or more advanced treatment facilities, should be authorized to move forward with locally sensitive and environmentally responsive controls. We encourage the committee to act quickly and positively on this legislation, because much time has already been lost and municipal agencies need to know now whether they will be able to move forward with locally designed solutions to local problems or whether they will have to impose insensitive national requirements within their jurisdictions.

I happen to represent the Metropolitan St. Louis Sewer District. We are building one huge secondary plant. We have one major plant that still has primary. I would like to say how seriously we take pretreatment, toxics and hazardous waste. We have had a very good program for over 10 years. We started by committing $500,000 alone in salaries plus millions I guess in labs and other equipment. Today we are spending over $1 million in salaries alone. We think we have a very severe and very good pretreatment program. If you operate with primary treatment on a major river, I can guarantee you you take your toxic and hazardous waste problems very seriously. I think we have whipped ours. And we still do not have secondary treatment at our one large plant, and we are about to complete it at another. So in no way do we want this to come out as some laxing of the intensity or the need to do something about toxic and hazardous waste. We just feel that the two are not necessarily correlated.

Senator CHAFEE. The judge says 5 minutes is up.

Mr. KAISER. Thank you.

Senator CHAFEE. Anything you wanted to add?

Mr. KAISER. No.

Senator CHAFEE. All right. Thank you, Mr. Kaiser.

I enjoyed meeting with AMSA people yesterday and going over some of the points that we were dealing with in your testimony has been very helpful.

Mr. King?

STATEMENT OF JOHN A. KING, DIRECTOR, ENVIRONMENTAL SERVICES SYSTECH LIQUID TREATMENT CORP., ON BEHALF OF THE CHEMICAL WASTE MANAGEMENT ASSOCIATION

Mr. KING. Mr. Chairman and members of the subcommittee, my name is John King. I am director of environmental services of Systech Liquid Treatment Corp., which operates wastewater pretreatment facilities in Ohio, Michigan and Tennessee. I am appearing before you today as a member of the Institute of Chemical Waste Management, an institute of the National Solid Wastes Management Association. Member companies of the Institute operate commercial waste management facilities which treat and dispose of industrial hazardous waste. The Institute of Chemical Waste Management and the National Solid Wastes Management Association have been in the forefront of support for a comprehensive and effective federal program regulating the management of hazardous industrial waste.

As members of this committee so well know, strong efforts will be made this year to close loopholes in RCRA. We are anxious to have an opportunity to express our support in detail for S. 757 offered by Senators Chafee and Randolph which would extend and strengthen the act.

Our concern today is with hazardous waste management in the context of the Clean Water Act. Today we direct attention to the regulation of risks that may result from discharge of hazardous solids and liquids to the publicly-owned treatment works. Recognizing the need to eliminate the burden of unnecessary duplication of regulation under both RCRA and CWA, the U.S. EPA has exempted discharges of listed and characteristic hazardous waste defined under RCRA under 40 CFR 261.3 under the supposition that these discharges would be regulated under the Clean Water Act.

However, the EPA has failed to regulate such hazardous discharges to the sewers under the CWA, leaving a significant loophole in regulation. Our position is that exemption of such discharges constitutes a violation of proper environmental management and congressional intent under both the Clean Water Act and RCRA.

A recent report, "Assessment of the Impacts of Industrial Discharges on POTW's," indicates that 30 percent, or some 5,000, POTW's in the United States fail to meet their Clean Water Act permit limitations primarily because of hazardous waste accepted in their influents. Most of this hazardous waste is exempted under RCRA. Yet pretreatment of industrial discharges prior to release to the sewers has not yet been fully implemented.

EPA treatment standards have a history starting with enactment of the Federal Water Pollution Control Act of 1972 which called for the first round of effluents standards setting discharge limitations to navigable waters and to the sewers as well as

achievement of more stringent restrictive toxic pollutant discharge regulations by 1983. That was the original intent.

To make a long story short, the U.S. EPA missed all of these deadlines. In the meantime, in response to public demand, in October of 1976, the Congress enacted RCRA. It is true that in May 1980 EPA finally defined hazardous waste. In spite of the fact that EPA identified some 60,000 facilities which generate, store and treat hazardous waste and by that time had negotiated 64,000 NPDES permits, still over 10,000 facilities failed to meet the toxic permit limitations.

Last May the EPA Administrator proposed to Congress amendments to the Clean Water Act which would enable the agency to issue industrial categorical standards for discharges to POTW's on a discretionary rather than a mandatory basis and allow for local exemptions for such standards and also compliance within 3 years of promulgation of those standards.

While the new proposed pretreatment categorical standards evolving rapidly at present may be readily understood in theory, they don't relate to actual POTW practice. The categorical standards specify discharge limitations for industry toxic pollutants for each subcategory within each category of industry. In contrast, the POTW's, particularly I am speaking of the ones that we deal with, manage all pollutants influent to their facilities on a common basis, with no regard to the pretreatment categorical standards or the sources of pollutants within their influent facilities.

Senator CHAFEE. One more minute, Mr. King.

Mr. KING. We are coming to the point now.

Ninety percent of all the POTW's are too small to have the capability to characterize their waste influents. Pretreatment standards in that context become meaningless. We believe that the Congress needs to step in and close the gap which allows 5 million metric tons of waste discharged in an uncontrolled mode to POTW's.

The remedy lies in amendments to RCRA, not the Clean Water Act. But we believe the approach which we present here today will also have immediate beneficial effects on the quality of surface waters.

Specifically we recommend that RCRA be amended to require that 6 months following enactment, wastes generated by the 21 industries for which pretreatment standards are being developed under the terms of the Flannery court order would lose their exemption under RCRA unless EPA has completed a rulemaking and permits are in place. As you will recall, the entire logic granting exemption for these discharges of hazardous waste to POTW's was based on the supposition that pretreatment standards would be in place. Our proposal would still allow discharge of nonhazardous wastes under the RCRA definitions to be governed only by the Clean Water Act and not RCRA, of course.

We believe our approach offers two advantages. First, it would encourage EPA to complete its long-delayed rulemaking under the Clean Water Act so that these industries can continue to discharge into the POTW's; and secondly, in the event that EPA does not promulgate the regulations and issue the permits in a timely fashion, it would insure that these wastes which are in fact hazardous under RCRA be required to be regulated under the RCRA regula-

tions until such time that pretreatment standards would be put in place.

I wish to thank you for this opportunity.

Senator CHAFEE. Fine. Thank you very much, Mr. King. It is somewhat of a new approach.

Miss Dubrowski?

STATEMENT OF FRANCES DUBROWSKI, SENIOR ATTORNEY, NATURAL RESOURCES DEFENSE COUNCIL

Ms. DUBROWSKI. Thank you, Mr. Chairman. I have submitted a more detailed statement for the record. In view of your time constraints, I would like to discuss only the major points of my statement.

Last year, when we testified before this committee, we emphasized that the pretreatment program is one of the Clean Water Act's most important programs for controlling toxic pollutants. We had also said that the program has now reached a critical turning point. After years of data gathering, the program is about to accomplish some of its goals.

For example, 10 national categorical pretreatment standards have been issued and another 10 are in proposed form. Modest progress is being made at the local level as well. There are over 100 POTW's which have obtained approval from EPA for their local programs. Many others are on the way to doing so.

At this point, it is important for Congress to keep this program moving. We would ask you to take two important steps to do so. The first would be to remind EPA that removal credits should only be granted where the data exists to support them.

In 1977, this committee put a removal credit provision in the law to avoid redundant treatment, not to weaken the toxic protections in the law. EPA has steadily retreated from this goal. In 1978, it proposed regulations which would have given the POTW authority to grant removal credits if it could show it was removing those pollutants in 95 percent of the samples taken at the POTW. In 1981, it amended those regulations to make it easier to show consistent removal. But recently, EPA has proposed a so-called "national removal credit." Under this theory, a POTW could just plug in numbers derived at a national level, regardless of whether or not the POTW was actually attaining that level of efficiency on its own. The problem with this approach is that EPA has picked numbers based on a study of 40 well-operated POTW's. The agency concedes that other POTW's probably will not achieve the same removal efficiencies. In fact, EPA thinks its numbers are closer to the median performance of POTW's. What this means is that half of the POTW's will be able to grant removal credits for reductions which are not taking place.

We think that this proposal is shocking coming from an agency set up to protect public health. We think it should be abandoned.

The second step we would ask you to take is to press EPA to issue regulations for the safe disposal of sludge applied to land or used in distribution and marketing. In 1977, you directed EPA to develop those regulations within a year. They still have not been promulgated. There are regulations for cadmium and PCB's ap-

plied to land, but not for other pollutants. There are no regulations for distribution and marketing, even though distribution and marketing go on in most of the states in an uncontrolled fashion.

We would ask you to set a new and realistic date for EPA to come up with those regulations, and to press the agency to do what is necessary to protect health and the environment.

Now, some would also propose that the program could be improved by adding a local waiver provision to the law. Under this theory, a POTW would be able to obtain an exemption from the national categorical pretreatment standards, and the industrial users discharging to that POTW would only be bound by local limits.

A variety of provisions have been drafted to accomplish this goal. The provision in your bill is more carefully crafted and more thoroughly considered than others we have seen. But in your opening statement you asked us to address the question of whether or not a local waiver was a good approach for the committee to take.

We would urge the committee not to take such an approach for a variety of reasons. We think there are serious problems in implementing such an approach, that it may well lead to less protection for the public from toxic pollutants and that the administrative cost of a local waiver would be substantial.

I would like to briefly address each of these three points. First, the problems with implementing the proposal. The waiver is based on the premise that one can determine questions of eligibility very quickly, so that the qualifying POTW's would get their waiver and the rest of the POTW's would continue under the national program. There would be minimum disruption of the program. Any number of events could disrupt that scenario. If EPA failed to promulgate the initial guidelines on time, if the POTW submitted an application and EPA did not believe that the application met the initial screening test, if the guidelines were contested in court, each of those events could create uncertainty in the administration of this program. If the local numbers in an uncertain situation were less stringent than the Federal numbers, then the industrial users might well decide to take their chances on the outcome of litigation and proceed with the local numbers. The job of enforcing the Federal numbers would thus be more complicated. In short, we question whether a local waiver is workable.

We also question whether or not a local waiver will provide the same level of toxic protection as the current law. The POTW's which have more stringent numbers than the national categorical standards are not affected by the promulgation of national standards.

Senator CHAFEE. You have 1 minute left.

Ms. DUBROWSKI. To sum up very briefly, the POTW's which have more stringent numbers are not affected by the national standards. In other words, you have written the law to allow those POTW's to leave their standards in place. It is the POTW's with the less stringent numbers which will be pressed by their industrial users to apply for waivers. Those POTW's will have to develop a great deal of information in a fairly short time.

The States have not given us water quality standards for many of these toxic pollutants. The Federal benchmarks for determining what is a safe method of sludge disposal are not in place. We ques-

tion whether the POTW's have the resources to decide these questions within a short timeframe; and, more importantly, does EPA have the resources to review all of this information. We fear that the exercise may well degenerate into paper pushing and offer only the illusion of control.

Finally, I would add that the price tag for a local waiver could be substantial. An internal EPA analysis concluded that the first 2 years of administering a waiver provision would cost $13.5 million each year if 600 POTW's applied. No one knows exactly how many POTW's could apply since it is unclear how many will have approved programs by the time the Clean Water Act Amendments of 1983 go into effect. In other words, we are paying a high price for flexibility, and we would urge the committee instead to press the agency to use its resources to protect public health.

Thank you.

Senator CHAFEE. Thank you very much, Miss Dubrowski. We appreciate that.

I will ask Mr. Kaiser to respond to what you have said, because obviously he represents a different viewpoint. I think in drafting that provision we never anticipated that any but the larger and more fully staffed POTW's would be in a position to apply for the so-called opt-out. You have raised some good points, and I will be asking Mr. Kaiser to respond to those.

Mr. Bernard?

STATEMENT OF JAMES P. BERNARD, PRESIDENT, BERNCOLORS-POUGHKEEPSIE, INC., ON BEHALF OF THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURERS ASSOCIATION

Mr. BERNARD. My name is James Bernard. I am president of Berncolors-Poughkeepsie, Inc., a small specialty chemical company employing 25, with sales of $2 to $3 million, that has manufactured dyes for the leather, paper and textile industries for over 50 years.

On a personal note, I had the privilege of serving on the Citizens Advisory Committee that helped to develop the local pretreatment program for the city of Poughkeepsie, having a POTW wastewater flow of 8 million gallons per day.

The committee consisted of members from the general public, Government, industry, environmental groups and the local POTW.

From our initial indoctrination to the final draft of the local sewer ordinance, we worked to develop a safe, effective, practical program that retained some degree of flexibility.

By combining pertinent local input with information drawn from State and Federal model sewer ordinances, we addressed our local requirements and developed an ordinance which is consistent with the intent and objective of the Clean Water Act.

In my view, our ability to be sensitive to local POTW-related issues helped to foster a spirit of cooperation that certainly aided in the creation of our program.

I appear today on behalf of the Synthetic Organic Chemical Manufacturers Association, also known as SOCMA. With me today are Ernest Ladd, of FMC Corporation, and chairman of SOCMA's water subcommittee, and Thomas Goldberg, SOCMA's manager of environmental affairs.

As requested, I have submitted SOCMA's written statement for the record. I will briefly highlight SOCMA's views.

As the chairman may recall, SOCMA appeared before the subcommittee last year to discuss pretreatment, an issue of great importance to SOCMA's members. You may also recall that SOCMA hosted a tour of the Wilmington, Del., POTW on November 18, 1982, which was attended by Mses. Stephanie Clough and Heather Wicke of the Senate Environment and Public Works Committee staff, Mr. Robert Hurley of your staff, and Ms. Mary Anne McGettigan of Senator Gorton's staff, as well as by five staff members of the House Public Works Subcommittee on Water Resources. That system is a large urban system discharging 70 million gallons a day and having over 300 industrial dischargers. Wilmington is another example where, in the absence of Federal treatment standards, an environmentally sound POTW program has been developed.

I personally had the opportunity to meet with your staff on December 8, 1982, to discuss SOCMA's concerns relative to pretreatment. We emphasized the point that many municipalities already have developed effective local pretreatment programs.

It was our view last year that the categorical pretreatment standard program should be eliminated in favor of local pretreatment systems.

We continue to believe that the present pretreatment strategy is not the most effective approach in advancing the goals of the act. However, we also recognize that others have strongly objected to the total elimination of the national categorical pretreatment standards.

The proposal in S. 431 for "alternative local pretreatment systems" represents a constructive effort to reconcile the diverse views presented during last year's debate. We appreciate that effort and are responding in what we believe is an equally constructive manner.

I believe that there are several basic principles from which an environmentally effective and workable program for alternative local pretreatment systems might be developed. I would like to briefly comment on those principles.

First, alternative local pretreatment systems should be considered the preferred option for implementing the Clean Water Act with respect to industrial users of POTW's. Such systems should not be viewed as exceptions to or waivers of the categorical pretreatment standards. Rather, alternative local pretreatment systems should be considered to be an independent means of achieving the goals of the act. Consequently, the Congress, in amending the statute, should encourage POTW's to develop alternative local pretreatment systems. Certainly unnecessary statutory and regulatory impediments to the development and adoption of local systems should be avoided.

Second, to achieve the goals of the act, an alternative local pretreatment system should ensure that industrial wastes do not preclude POTW compliance effluent limitations in its NPDES permit implementing secondary treatment requirements or implementing State water quality standards.

Third, and similarly, an alternative local pretreatment system should insure that industrial wastes do not preclude the sludge use

or disposal system option chosen by the POTW consistent with applicable regulatory requirements.

Fourth, the POTW and the permitting agency should be according flexibility in the type and mix of pretreatment requirements for industrial users of the POTW so long as the two foregoing basic requirements are met.

Fifth—and this is an important one for me as I experience this myself—an opportunity for public participation in the development of an alternative local pretreatment system should be accorded. In particular, industrial users of the POTW should be encouraged to participate in the development of the local program.

I believe that a workable and acceptable pretreatment program can be derived from these principles. SOCMA's views on specific aspects of the program differ somewhat from those reflected in S. 431.

For example, we are concerned about the detailed eligibility requirements which would preclude many otherwise qualified POTW's from applying for approval of an alternative program.

We do not believe that it is necessary for the permitting agency to develop and include in the POTW's permit a specific effluent limitation for each pollutant to which the alternative program would apply. The effluent limitations should be focused on those pollutants which are a significant problem for that POTW.

The time for compliance with requirements of alternative pretreatment programs is somewhat unclear in S. 431. It is essential that the deadlines of S. 431 take into account the time required to design and install equipment to meet those requirements.

Senator CHAFEE. One more minute.

Mr. BERNARD. These concerns and other comments on S. 431 are discussed in more detail in our written statement. We believe that they reflect a constructive step toward the resolution of this important issue.

We thank you for this opportunity to appear.

Senator CHAFEE. Thank you very much, Mr. Bernard, for your testimony from SOCMA. I know that your group has been very active and helpful in this overall area. We appreciate it.

Mr. Hyner?

STATEMENT OF MARK HYNER, PRESIDENT, WHYCO CHROMIUM CO., ON BEHALF OF THE CONNECTICUT ASSOCIATION OF METAL FINISHERS

Mr. HYNER. Thank you.

Senator Chafee, distinguished members of the subcommittee, council, and staff, my name is Mark S. Hyner, and I am here today representing the Connecticut Association of Metal Finishers.

Our association members represent approximately 100 metal finishing companies in the State of Connecticut. The 2,000 or more people employed in the metal finishing industry in our State supply services for a broad spectrum of industries, including the aircraft, automobile, computer, and medical equipment fields. Even unsophisticated products like paper clips and pencils could not be made without our services. Our processes prevent corrosion, in-

crease life, reduce wear and assure the operating reliability of American-made products.

Since the enactment of the Clean Water Act, Connecticut business and industry has been in the forefront in the development and implementation of waste treatment and disposal technologies, especially as related to the metal finishing and electroplating industries. During the past 10 years, the metal finishing industry in the State of Connecticut has invested millions of dollars and thousands of hours of time of highly qualified technicians and engineers to make certain that it would meet the standards established by the Clean Water Act. Our industry has spent this money and performed these functions because we believe that the metal finishing industry, as well as all other industry, does have a public responsibility to make sure that rivers and streams are not polluted by our processes. We believe that the aims and purposes of the Clean Water Act are proper and believe strongly that uniform standards should be established to assure that metal finishing companies in all States adhere to these standards and thereby provide a better environment.

We are extremely proud of what we have accomplished environmentally in our State. We again have salmon in the Connecticut River. We boat, swim, and fish in rivers that 10 years ago were nothing more than open sewers. In Connecticut we have met and continue to meet the objectives of the Clean Water Act.

While being justly proud of our accomplishments, which have cost our industry millions of dollars for pollution abatement equipment and constant ongoing operating expenses associated with treatment facilities, we find ourselves in the midst of a dilemma.

We have abided by the Clean Water Act, the regulations and enforcement procedures promulgated by the act. We have not fought nor opposed State interpretations of the act. We find, however, a complete lack of uniformity in the interpretation, implementation, and enforcement of the act throughout the country. This inequality has placed us at a severe economic disadvantage. It is ironic that we, the metal finishers of Connecticut, who have supported the goals and purposes of the act, should now find ourselves wondering whether our competition in other States will ever achieve our levels of environmental success.

This expression of dissatisfaction with the present and/or proposed program is not simply attributable to the competitive disadvantage which results. If the proposal for municipal treatment embodied in Senate bill 431 would, in the opinion of our membership, result in uniformly good water quality, we would support the proposal.

Senator CHAFEE. Mr. Kaiser, I will be asking you about these questions, on the point Mr. Hyner is raising here, so I would be interested if you follow closely what he is saying.

Mr. KAISER. I don't think his metal finishers are doing anything ours haven't been forced to do.

Senator CHAFEE. Let's see. Let him go through his points.

Mr. HYNER. Unfortunately, it is our opinion that for the following reasons the proposal will not work:

No. 1, it is not politically realistic to expect the same municipal government which expends great efforts to attract and retain in-

dustry for employment and tax base benefits to vehemently enforce pretreatment discharge standards established for the very same industry.

No. 2, no mechanism has been established by which municipalities proposing to be exempt from the Federal POTW pretreatment program (more simply referred to as POTW opt-out) can raise revenue to support new personnel and testing capabilities associated with permitting, monitoring, and enforcement. Municipalities just don't have the money to train staff and monitor treatment plants, much less have the resources or personnel to permit, monitor, and enforce regulations concerning a large number of industrial plants.

No. 3, in the event of a violation of discharge permit conditions by a POTW, no effective sanction exists to force the POTW to cease discharging either municipal or industrial waste. Is it reasonable to assume that EPA will shut down municipal treatment works if they do not meet State or Federal standards?

No. 4, if POTW opt-outs are provided for by the legislature and permitted by EPA, industrial forum shopping will surely increase as companies expand or relocate in areas with the least strict operating and enforcement requirements. The result of such industrial forum shopping will be a net increase in pollution.

In addition to the political and practical problems with the present program and proposed amendments, it is our opinion that the following technical deficiencies render unsound the proposal for municipal treatment work opt-out(s) as structured in Senate 431:

One, public-owned treatment works as a rule simply were not and are not designed to receive and treat industrial wastewater. Treatment of industrial waste received at a POTW is accomplished by way of accident rather than planned engineering.

Two, the proposals for pretreatment and POTW's in Senate bill 431 fail to recognize that while a POTW may be meeting secondary treatment standards, it may be operated at or above capacity and as a result have problems of overflow and bypass episodes resulting in the discharge of untreated municipal and industrial effluent directly into receiving waters.

Three, the Federal program and proposed amendments, by not requiring uniform pretreatment standards and/or by providing for pollution abatement credits from the POTW, have the practical effect of facilitating the generation of large quantities of human organic waste contaminated by industrial wastes, including metal hydroxides. This contamination of the human waste by these constituents which could have been removed and segregated at the generating plant through uniform pretreatment renders the entire waste pile a hazardous waste. This classification as hazardous waste necessitates costly disposal at already scarce hazardous waste disposal sites. This waste requires further care to protect ground and surface waters in that the acid in the human waste causes the metal hydroxide in the POTW sludge to break down, thus releasing free metals back into the environment.

Senator CHAFEE. One minute, Mr. Hyner.

Mr. HYNER. In addition to these environmental consequences of the present and proposed program, two natural resources are wasted. With adequate uniform pretreatment at the generating fa-

cility, the metal hydroxides are segregated at the plant. These hydroxides will be in such concentrations that they will likely constitute a valuable source of strategic metal in the near future.

Furthermore, if the metal hydroxides are removed from the effluent stream by pretreatment and retained at the generating facility, the organic waste removed at the POTW can be a valuable source of fertilizer when properly treated. Both of these resources are lost without strict uniform pretreatment standards.

We respectfully oppose Senate bill 431 for the reasons we have just stated. Our association would appreciate your consideration of our recommendation that the existing and proposed Federal pretreatment standards be enacted as soon as possible, calling for uniformity of standards, enforcement, and applicability to all the States and their political subdivisions.

We respectfully request this subcommittee to recognize the inequalities of the current EPA practices as well as the proposed legislative amendment and to accordingly take immediate steps to implement goals and standards commensurate with the uniformity inherent in the Federal environmental laws.

On behalf of the association, I want to thank you for this opportunity to appear and present testimony.

Senator CHAFEE. Thank you.

Mr. HYNER. Mr. Chairman, I have one more point. As a final note, I would like to submit comments for the record from Governor O'Neill which express some of his sentiments.

Senator CHAFEE. Thank you very much. We will put that in the record.

[The information follows:]

WATER COMPLIANCE
Dept of Environmental Protection
RECEIVED
AUG 13 1982

WILLIAM A. O'NEILL
GOVERNOR

STATE OF CONNECTICUT
EXECUTIVE CHAMBERS
HARTFORD

August 3, 1982

Ms. Anne M. Gorsuch
Administrator
United States Environmental
Protection Agency
Washington, D.C. 20460

Dear Ms. Gorsuch:

The State of Connecticut is pleased to comment on EPA's legislative proposals for amending the Clean Water Act. The following concerns are offered for your consideration.

SECTION 1. (b) - Section 106 Authorization - This proposal does not provide the federal commitment and program stability necessary for meeting the Clean Water Act objectives. Section 106 funding must, at a minimum, be maintained at the current level. Realistically, to continue to make progress towards the goals of the Act, the funding level should be authorized for a five year period to at least $75,000,000 annually. State program grant support under Section 205(g) and 205(j) are not a substitute for Section 106 grants.

SECTION 2. - Section 301 Treatment Compliance Deadlines - I am very concerned about the impact of toxic substances and support the rapid development of toxic criteria. EPA's approach of developing categorical toxic standards (Best Available Treatment - BAT), although valuable in certain situations, are less useful for ensuring acceptable water quality in individual rivers and streams from the effects of toxic substances.

The proposed extension of the compliance deadline to 1988 remains dependent on EPA's ability to promulgate BAT categorical standards. For much of the industry in Connecticut, Best Practical Control Technology standards have yet to be developed. Arbitrary deadlines have not been an effective inducement for BAT guideline issuance and the achievement of effluent standards. Compliance deadlines should be related to the adoption of categorical treatment standards.

SECTION 7. - Section 307 Pretreatment - I am very concerned about EPA's pretreatment program and legislative proposal. Changes in the pretreatment program may exacerbate an unfair economic advantage for industries located in states, which unlike Connecticut, have not implemented an industrial pretreatment program for discharges to sanitary sewerage systems. By allowing more categorical exemptions and relaxing treatment standards, the attainment of national water quality goals may be delayed or inhibited for certain water bodies. The effect of this proposal may be further slippage in the control of toxic pollutants because dilution may be determined adequate control versus treatment at the industrial wastewater source.

Providing exemptions to pretreatment requirements and categorical exemptions should be deleted and the existing provisions retained. Ideally the pretreatment program should be separated from Sections 307 and 402, and a clear comprehensive program formulated which must not rely on the construction grant program as a means of implementation.

SECTION 10. - Section 313 Federal Facilities - State of Connecticut facilities are not exempt from state water pollution control laws, regulations, and policies and I feel the exemption of federal facilities from federal Clean Water Act provisions is inappropriate.

SECTION 11. - Section 316 Thermal Discharges - I oppose EPA's proposal to modify requirements for thermal discharges and cooling water intake structures. Section 316 requirements were initially difficult to establish and implement, however, the program is now well structured, stable, and effective. Changes would not result in progress toward achieving the Act's goals.

SECTION 12. - Section 402 NPDES Permits - The change from 5 year permits to 10 year permits is not an issue to Connecticut provided the ability to reopen a permit, at any time, for cause is maintained and the State law is not preempted.

SECTION 14. - Section 402 Dams - Environmental problems resulting from the presence and operation of dams should not be exempt from NPDES permit program requirements. Class exemptions could be developed to eliminate the need to issue permits for most minor facilities.

The State of Connecticut does not believe EPA's proposal to amend the Clean Water Act gives full consideration of the issues. For example, the goals of the Act (Section 101) should be amended to reflect federal financial and regulatory committments. The water quality management planning Sections (205(j), 208, and 303(e)) should be consolidated to establish a single coordinated and comprehensive planning program having adequate financial support. EPA responsibilities for research and development of criteria for toxic and hazardous substances should have additional emphasis in the Act. Additional toxic criteria for example should be developed to assist in the assessment and understanding human health risk probabilities.

I hope these concerns are helpful and constructive. I believe continued progress towards state and national clean water goals is necessary and of great public benefit.

Sincerely,

Wm. A. O'Neill

WILLIAM A. O'NEILL
Governor

Senator CHAFEE. Thank you all for your testimony. Now, Mr. Kaiser, you have an opportunity to respond.

Mr. KAISER. First, I would like to respond to the lady on my left. She uses the term 13 million, and she is convinced that EPA and the States can handle the categorical pretreatment program, but they are totally inadequate to handle some 70 to 100 POTW's that have been working on this long before EPA and I am sure long before the platers in Connecticut were working on it. I think that to think you can talk about 13 million in EPA and not talk about the cost to local POTW's to enforce all of these things, how come we can enforce a national standard then?

Let me answer this to both of my colleagues. We have the interest, because if we get toxics and hazardous, our treatment process doesn't work. We have a hell of a mess and a hell of a stink that we have to deal with those people in our neighborhood. It is our problem. The buck stops with our treatment plant. If a plater spills, we get it. If a dairy spills, we get it. And we regulate it. And I feel that this is the answer to that particular question.

Every applicant is not going to get this waiver. I will guarantee you, in my State they know we can do it or we can't do it. I guarantee you in Connecticut they know those POTW's that are producing and those that aren't. So, first of all, every applicant is not going to get the waiver.

Second, if you don't have the information in time and if you haven't been working on your program over a period of time, I agree with the lady, you won't have the information, but you won't be able to apply for the application or even get the information to the agency.

I still haven't seen anything that EPA is totally capable of managing a national pretreatment program, and they couldn't handle about 50 to 100 applications from agencies like ours. So Mr. Hyner obviously doesn't know much about what POTW's do and how they operate or——

Senator CHAFEE. Let's not get characterizations. Get to the point.

Mr. KAISER. He makes a pretty strong statement. He says I am in industry's bag and that we are incapable of keeping things out. I happen to not appreciate those kinds of remarks because we are very strong in our industrial waste program, and I invite him to come out and take a look at the biggest one we have and how much they are spending right now.

But what I am saying is this: What he is talking about is categorical pretreatment standards. He obviously didn't listen to what I said because I didn't say only protect the effluent. The effluent is easy, Senator. The sludge is miserable. If he is telling me that you are going to take some type of hydroxide with metals in it and use it for a fertilizer without running afoul of about 90,000 different regulations, then I am telling him he better read other than that. What I am saying is we want the pretreatment program to end up with a safe air pollution problem, a safe water pollution problem, and most of all a sludge that I can put in a demolition landfill at the house. I didn't want to talk about a sanitary landfill. We want sludge that is safe. We don't want heavy metals. We don't want hazardous and toxics in it. And we are now regulating our industry.

It is that type of program that I am talking about, not one that just let's anybody dump anything into the system so that we have a sludge that costs us $40, $50 a ton to get rid of it and pretty soon we will not be able to get rid of it.

So personally I think we are talking about a pretreatment program regulated by someone like ourselves who have been doing it, because we have the interest; because if the bugs are killed in our plant, I don't need the Federal Government. I have four television stations, two daily newspapers, and a citizens group, and they will regulate me. I don't have to get EPA. We know about it and everybody knows about it before the State regulatory agency.

Senator CHAFEE. What is the difference, Mr. Kaiser, between a good local program and the categorical standards?

Mr. KAISER. Let me tell you my biggest objection. My biggest objection right now is I have a $1 million lawsuit going about a guy picking up some sludge from a plater and taking it to a house and dumping it into a sewer in concentrations that caused some problems because he went to one of our smaller plants. What you are talking about is a method of possibly getting rid of some heavy metals, putting them in our system. By the time they reach our plants, they are unsafe, they are not effluent. They are safe in the sludge we get rid of and safe in the ash. We have not violated any rules.

What we are talking about is these platers are going to have some metals. Over here will be a chemical with dioxins. Here we will have something else, piles everywhere. Where is the logical place to put them now as hazardous waste sites are becoming more scarce? Right in the manhole of our system.

I would much rather regulate something from each industry and have it in quantities that are safe than I would be to have all of these piles of these hazardous things taken out by all of these people regulated by—we have 2,200 industries that will be regulated under your categorical pretreatment standards. We kept tabs on them. We know what they are putting out. I just as soon we make them take things out. But we can monitor them. A small plater, yes, he is probably right. If a small plater gives us a small pile of chromium and we can't find it when it gets to the plant because it is so small, we might not put him out of business. I don't think that is a mortal sin if there is no air pollution, water pollution.

Senator CHAFEE. In your comments, Miss Dubrowski, I would appreciate it if you would address the point that many cities, such as perhaps Mr. Kaiser's, have done extensive work, have good local ordinances, and have made these substantial investments. What do you say to them? They are prepared to handle the effluents that come to them that they have carefully screened and know about. Now, are you saying to them that it is just tough luck, it is too bad they made the investments and the Federal Government is the only one that can control this through the categorical standards?

Ms. DUBROWSKI. Well, Mr. Chairman, there is no question that there are some POTW's with some local numbers more stringent than the numbers that you would have under the Federal standards. But we are not talking about those here, because the law already says that those local numbers don't change when the Federal

Government does anything. What we are talking about here are the less stringent local numbers.

The argument that you can go with less stringent local numbers instead of with the categoricals is based on the assumption that you can pick up any problems by looking simply at water quality and at sludge. But the benchmarks for making those decisions are not in place.

For example, if a POTW comes to EPA and says go with our less stringent local numbers, our sludge disposal method is safe, how does EPA make the decision that that is OK? EPA doesn't have regulations for sludge disposal for most of the toxic pollutants. The same problem exists with respect to water quality standards.

Mr. Kaiser is saying that only a few people can apply. But, in fact, anyone who meets secondary treatment and has an approved local program can apply.

EPA concluded a year ago that 79 percent of the larger POTW's required to have program approval had made substantial progress toward that approval. That was a year ago. If we are talking about some date in the future, there may be many POTW's in the approved category. If all of those plants come into EPA with site-specific water quality standards, local numbers developed for this application, and site-specific sludge determinations, EPA is going to have to be making an awful lot of decisions within a short period of time, and we are afraid that public health will suffer as a result of the press of business.

Mr. LINTON. I wonder if it would be possible if we can submit some responses in writing, because an awful lot of apples and oranges are being added together here that make it very difficult to respond in an open debate.

One of the basic things that we have always stated since AMSA first began to apply itself to a pretreatment modification 5 years ago is that our approach for a local program was not an approach based upon a change in standards or a change in water qualities. We are not approaching this on the basis that we don't want to achieve the same objectives that are achieved by national categorical standards.

The purpose for this is to achieve the same water quality and the same protection faster, more efficiently, and more cost effectively. If that can't be done, then the local agency itself is not going to apply for this kind of a program. And certainly the impression that I would get if I were sitting in the audience, without knowing much about this, would be that these programs are going to be developed at the local level, implemented at the local level, and that no one at the State or Federal level is going to have anything to say about it.

If EPA is incapable of reviewing and improving a local program, it is not going to go into effect the way we read the law. Unfortunately, too many of the things that have happened over the last 10 years have been predicated on that basis. The result is that most of the pretreatment programs that are in place and are doing a good job now are those pretreatment programs developed by the larger agencies, which happen to have large staffs, capable staffs, and which, despite what one witness said, are not subject to the political pressures of——

Senator CHAFEE. Let me ask you this, Mr. Linton. If you have such a good local program, and that is because you have worked it out with your industries in advance so that they are not putting cadmium or whatever it might be in, how is that different from the categorical standards that the Federal EPA will levy?

Mr. LINTON. Because our agencies feel it is more effective, efficient, and easier to apply the local standards than to apply removal credits. I believe that very, very few of our agencies will use the removal-credit approach in terms of the way it is set up now. It is simply a substitute approach to the removal-credit approach.

Senator CHAFEE. All right. Why don't you go ahead and do submit that. [See p. 819.]

I appreciate all of you testifying. This is a very, very difficult point. Emotions run high on it, as you can see. One of the difficulties is I think the point that Miss Dubrowski makes about the time and energy of EPA being involved and trying to monitor all of this, with all of the various plants, it seems to me if somehow it were only the 50 biggest plants in the country, maybe you do have the technical abilities. But as Mr. Hyner, or was it Mr. Bernard, mentioned, most of the plants don't have the capabilities in my judgment to handle this. Yet they are going to come and apply. Then EPA has to go out and monitor them, and EPA just doesn't have the manpower to do that.

Nonetheless, let's see. We can look forward to what you might submit, Mr. Linton, or Mr. Kaiser, and any of the others who wish to, because this is an important subject. Thank you all for coming. We appreciate it.

[Whereupon, at 12:45 p.m., the subcommittee was recessed, to reconvene subject to the call of the Chair.]

[Statements supplied for the record follow:]

TESTIMONY OF

GOVERNOR HARRY HUGHES

ON S. 431

THE CLEAN WATER ACT AMENDMENTS OF 1983

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

APRIL 14, 1983

I am pleased to be here today to discuss with you my views on Senate Bill 431, "Clean Water Act Amendments of 1983" especially as it concerns the Chesapeake Bay. I consider this section to be the most significant in the bill from Maryland's standpoint.

At the outset, I want you to know that Maryland supports a strong Clean Water Act. We have found the framework of the 1972 Act with the 1977 modifications to be basically sound and workable. Under the existing Clean Water Act, Maryland, in concert with EPA, has made significant progress toward cleaner water.

Senator Chafee is to be commended for recognizing the strength of the current Clean Water Act and proposing a modest package of amendments aimed at improving it. S. 431 recognizes that federal minimum standards must be maintained in order to insure continued uniform progress towards cleaner water. Moreover, the proposed changes in S. 431 emphasize the importance of the very significant problem of nonpoint source pollution. William Eichbaum, Maryland's Assistant Secretary for Environmental Programs, presented testimony last week on the issue of nonpoint sources, which I endorse. My staff will also be forwarding to this Subcommittee detailed comments on other sections of S. 431. My remarks will be limited to the section on "Chesapeake and Narragansett Bays."

The section in S. 431 entitled "Chesapeake and Narragansett Bays" would add a valuable concept to the Clean Water Act by giving special recognition to these waters of national significance. The Chesapeake

Bay is one of our most cherished and valuable national natural treasures. It is the largest and most productive estuary in the contiguous United States. The drainage area for the Chesapeake Bay is nearly 64,000 square miles in size, and includes parts of 6 states and the District of Columbia. Its primary tributaries, the Susquehanna, the Potomac, and the James, are major river systems in their own right.

The Chesapeake Bay Region is home to more than 8 million people, including the great metropolitan areas of Baltimore, Washington, Richmond, and Norfolk. The Bay has dominated the history of this region, its economy, its culture, and its lifestyle. We all share the riches of the "Land of Pleasant Living."

Before discussing specific provisions of S. 431, I will provide you with a few background statistics on the importance of the Chesapeake Bay. Then, I will discuss the problems facing the Bay which have been extensively documented by EPA's Chesapeake Bay Program and what we must do to take action on them.

Marylanders, along with our neighbors in Virginia, have always considered the Chesapeake Bay a natural resource of great value. The seafood industry, waterborne commerce, and water-oriented industry have dominated Maryland's economy. The Chesapeake is important not only to Maryland and Virginia but to the nation as a whole. The Bay's fishing

production is exceeded only by the Atlantic and Pacific Oceans. The average annual oyster catch over the last fifty years has been approximately 27 million pounds per year, more than a quarter of the nation's total yearly oyster catch. The Chesapeake is the largest producer of blue crabs in the world, averaging about 55 million pounds annually. More than half the total U.S. catch of both soft-shelled clams and blue crabs comes from the Chesapeake. The dockside value of the Bay's fishing catch exceeds $100 million per year, including both shellfish and a thriving fin-fish industry.

The Chesapeake is also a key commercial waterway; two of the five major U.S. North Atlantic ports are located on the Bay. The Hampton Roads Complex, which includes Portsmouth, Norfolk, Hampton and Newport News, dominates the mouth of the Bay. At the Northern end, the Port of Baltimore handles nearly 24 percent of the export commerce leaving the U.S. North Atlantic ports. More than 90 million tons of cargo, with a value of nearly $24 billion, were shipped via the Chesapeake during 1979.

Both Baltimore and Hampton Roads are situated near the coal-producing regions of Appalachia, making them essential to promoting the use of U.S. coal abroad. The Hampton Roads Complex already leads the nation in exporting coal and lignite.

Perhaps one of the Chesapeake's most valuable functions is its role as a major wildlife habitat. Migratory birds and waterfowl use the Bay

as a major stop along the Atlantic Flyway, finding food and shelter in the numerous coves and marshes. The Chesapeake is also the winter home for approximately half a million Canadian geese and more than 40,000 whistling swans. It is a nesting area for the endangered bald eagle and the osprey, whose largest U.S. population is found in the Bay region.

The Chesapeake's tributaries provide spawning and nursery sites for several important species of salt-water fish, such as the white perch, striped bass and shad. It is estimated that approximately 90 percent of the striped bass along the Atlantic Coast spawn in the Chesapeake Bay waters. During the warmer months, several marine species including blue-fish, weakfish, croaker, menhaden and spot enter the Bay to feed on its rich food supply.

The hospitable climate, lush vegetation and natural beauty of the Chesapeake have made it an increasingly popular recreation area. Boating, fishing, swimming, hunting and camping are the major attractions. Both power and sail boating have grown dramatically. More than 120,000 pleasure craft are registered in the State of Maryland alone. The annual sport fish catch in the Chesapeake Bay is estimated to be 28 million pounds.

Given these impressive statistics on the Chesapeake Bay, it is clear why we in Maryland are so anxious to protect our natural treasure, and why we have been closely involved with EPA's Chesapeake Bay Program.

This is the final year of the Chesapeake Bay Program. Nearly 7 years and $30 million have been spent studying water quality and living resource problems in the Bay. It has been a long and expensive study, but we believe the Program has significantly advanced our understanding of the natural processes in the Bay and the effect of human activities on them. The states of Maryland, Virginia, and Pennsylvania have been working closely with the Chesapeake Bay Program to draw conclusions for management needs from the scientific findings of the Program. As a result, the Chesapeake Bay Program will conclude not only with extensive documentation of problems in the Bay, but also with a clear set of recommended alternate actions which could be taken to solve the problems.

The Maryland Departments of Health and Mental Hygiene and Natural Resources have been active participants throughout EPA's Chesapeake Bay Program. Oversight for the Chesapeake Bay Program has been provided by a Management Committee composed of members from the states of Maryland, Virginia, and Pennsylvania, as well as EPA. Maryland was uniquely represented on the Management Committee by two members - the Director of the Tidewater Administration in DNR, who is responsible for tidal fisheries, and the Assistant Secretary for Environmental Programs in DHMH, who is responsible for water quality. In large part because of the influence of the state members of the Management Committee, the Chesapeake Bay Program became a management-oriented study, rather than strictly a research program.

The Chesapeake Bay Program has learned, or confirmed, some very critical facts about environmental health of the Chesapeake Bay. The bay grasses are at their lowest level ever in the Bay. The populations of fresh water spawning fish, including the American shad and striped bass, are at historically low levels.

The upper and mid Bay and many of the Bay's tributaries are either severely or moderately nutrient enriched compared to what they were historically. Nutrient levels have increased dramatically over the past ten years in these waters, making them much more susceptible to algal blooms, and resulting in low levels of oxygen and light. The nutrients causing enrichment problems are phosphorus and nitrogen, which come from sewage treatment plants, industrial discharges, urban stormwater, and runoff from agricultural land.

The Chesapeake Bay Program has also found a clear correlation between the high levels of nutrients and low levels of bay grasses and fresh water spawning fish. Apparently the level of nutrients in the Bay has exceeded the point where they can increase productivity. The excess nutrients are now beginning to inhibit the survival of sensitive species.

Of equal concern is the finding of the Chesapeake Bay Program that the sediments in some portions of the Bay show high concentrations of heavy metals and toxic organic compounds. The highest metal and organic

concentrations in sediments occur in the northern Bay, in Baltimore Harbor and the Elizabeth River. At least half of the metal loads for all of the organic loads come from human sources, particularly industrial discharges, sewage treatment plants, and urban runoff. In some areas, concentrations of toxic metals and organics in the sediments are high enough to cause mortality in test animals subjected to samples of these sediments. There is a clear correlation between diversity of species living in the sediments and the level of toxic materials present.

The most dramatic finding of the Chesapeake Bay Program is the fact that the circulation patterns of the Bay make it a sink for pollutants, including sediments, nutrients, and toxics. We used to believe that materials carried into the Bay by streams and rivers were eventually flushed out to the ocean. Now we know that the suspended materials tend to settle out and accumulate in the sediments. What goes into the Bay stays there. The entire 64,000 square mile drainage basin is part of the living ecosystem of the Chesapeake Bay. Any activity affecting the land and water in any part of the watershed may ultimately have an effect on the living resources of the Bay.

During the next six months, the Chesapeake Bay Program will complete its final management recommendations on alternative actions to reverse the trends of Chesapeake Bay resource and water quality decline in the Bay documented by the Program. The States, working with EPA, will develop plans of corrective strategies based on EPA's recommendations.

At the same time, the States and EPA will be undertaking the necessary steps to insure a smooth transition of the Chesapeake Bay Program from a federal research program to a federal/state management program. This transitional period was made possible by the $900,000 congressional appropriation to the Chesapeake Bay Program for FY'83. In addition, the states themselves have made substantial contributions of both funds and personnel resources to this effort. In partnership, the states and EPA are developing plans and mechanisms for future joint monitoring of the Bay, operation and maintenance of the computer system and water quality models, and interstate cooperation on pollution control efforts. The massive computer data base on the Bay's water quality and fisheries comprises a comprehensive baseline of information about the current state of the Bay and trends. Future monitoring data will be added to this system. The mathematical water quality and circulation models enable prediction of the effects of changes in various pollution sources and assessment of the effects of alternative management options.

These valuable tools developed by the Chesapeake Bay Program will allow the states to maintain a continuing watch on the Bay, to determine whether our actions are improving conditions.

In November, Governor Robb of Virginia and I, together with the Chesapeake Bay Commission (a Maryland-Virginia joint legislative commission), will be co-sponsoring a major conference on the Chesapeake Bay. We hope Governor Thornburgh of Pennsylvania will join us.

The states are looking toward this conference as an opportunity to develop and commit jointly to a series of interstate actions on the Bay. The decisions made at the conference will form the major components of the Interstate Management Plan for Chesapeake Bay called for in S. 431.

We have already begun a number of efforts in Maryland to address the nutrient enrichment problems in the upper Bay and its tributaries. For example, Maryland has adopted a regulatory strategy to limit phorphorus from sewage treatment plants discharging to the upper portion of the Bay, where nutrient enrichment problems are most severe. Recently, the Maryland General Assembly enacted my proposal for a $5 million program to finance agricultural land management practices to reduce nutrient runoff from farmland. In addition, Maryland is taking an innovative approach to management of the water quality of the Patuxent River, a tributary to the Chesapeake Bay, by setting targets for nutrient load reductions over a specific time period, and then designing the best mix of management strategies to meet them. The Patuxent strategy may prove to be a prototype for the way in which Chesapeake Bay Program findings and information can be used to develop action strategies for other portions of the Bay. We have made a start in Maryland on reducing agricultural runoff through our new cost-sharing program. Undoubtedly, additional funding will be necessary to address all of the agricultural problem areas in the State. I support the kind of initiative taken by the Mason-Dixon Task Force, a group of 22 Maryland and Pennsylvania counties, which have requested designation by the U.S. Department of Agriculture as a critical area to receive federal cost-sharing funds.

Although Maryland has begun to commit resources to and take action on the Bay's problems, much more needs to be done. S. 431 would provide the kind of supplemental financial and political support we need to strengthen our Bay protection efforts.

The language in S. 431 concerning the Chesapeake Bay is to be commended for several reasons. First, it is innovative in recognizing the importance of a management plan to guide action on the water quality problems of the Chesapeake Bay. Second, the bill recognizes that such a management plan must be an interstate plan in order to address effectively the Bay's water quality problems. Third, the proposal for cost-sharing of the implementation of a management plan by the states and the federal government will continue the productive partnership begun through the Chesapeake Bay Program. Fourth, the bill acknowledges the importance of a continuing role for the federal government on the Bay.

I welcome the emphasis of the bill on implementation. The Chesapeake Bay Program has provided us with much information that we can take direct action on now. The $10 million authorization for grants to the states in Section 117(e)(1) will provide the states with an excellent incentive to strengthen our Bay management programs.

The kinds of activities we would expect to use these funds for in Maryland include continuing and expanding our existing efforts to control nonpoint sources of pollution to the Bay. We intend to explore ways in which our stormwater management programs in urban and developing areas

can be strengthened to better address nonpoint sources of water pollution. We also intend to look closely at the role that land use planning and zoning can play in preventing development of unsuitable areas and in establishing setbacks and buffer zones.

As far as control of toxic pollutants entering the Bay is concerned, we believe that a strong pretreatment program would be an invaluable tool.

In addition to continuing and strengthening these efforts, Maryland will be looking at many other options for reducing pollutants, both nutrients and toxics, entering Chesapeake Bay. These might include changes to our water quality standards to recognize the relationship between living resources in their critical life stages and ambient water quality. We will be examining specific areas of the Bay and tributaries which are particularly stressed or in need of protection, for targetting load reductions. We will reexamine our priorities for installing advanced waste treatment facilities at selected sewage treatment plants and find new ways to finance such facilities. We also will look at ways to encourage greater use of land application methods. We intend to accompany any new program initiatives with a strong program to monitor water quality and living resource changes in the Bay. We need to establish clear benchmarks in order to evaluate our progress toward a cleaner Bay and to make mid-course corrections if necessary.

In my view, the "interstate management plan" discussed in 117(a) of the proposed new section will be developed by the states. This management plan is to be drawn from the alternative management recommendations contained in EPA's final management report expected by September. The one-year time-period for formulation of the plan should be reasonable given the fact that the states are already working with EPA on developing action strategy alternatives for the management report. As I noted earlier in my remarks, the Governors hope to be able to make some commitments for action as early as the November conference on the Bay.

Let me emphasize that the interstate dimension of a management plan is tremendously important. I consider it critical to future management of the Chesapeake Bay that there be continued communication and cooperation among the states and the federal government in formulation of strategies to manage the Bay. I am committed to Maryland's strong participation in a continuing interstate institutional mechanism to coordinate implementation of interstate management strategies for Chesapeake Bay.

I am convinced that the best mechanism for continuing interstate/federal coordination on the water quality and fishery problems of the Bay is the continuation of the Management Committee which has directed the EPA Chesapeake Bay Program. This Committee has been very effective

in coordinating federal and state involvement throughout the Chesapeake Bay Program, and we expect that it would continue to provide the kind of coordination necessary during the implementation phase of the program.

It would be desirable to provide basic support to the Management Committee through a continuing EPA Chesapeake Bay Program office. This office should be composed of a small core staff and continue to be located in Annapolis. The responsibilities of the office would be to provide support to the Management Committee, oversee operation of the Baywide computer system, and conduct additional limited research on water quality and fishery problems in the Bay. The continuing Chesapeake Bay Program office should be funded out of the $3 million appropriation for Section 117(e)(2). Also to be funded out of 117(e)(2) would be the modest research efforts called for in Section 117(c).

The proposal for 55% federal cost sharing of implementation activities is reasonable. The concept of cost-sharing recognizes the joint responsibility of the states and the federal government in managing the Chesapeake Bay.

I believe that the authorization for $10 million per fiscal year for four years is a reasonable amount to assist the states in the Chesapeake Bay watershed to undertake some significant programs, particularly in controlling nonpoint sources.

I would like to sound a note of caution, however. Congress should not consider this authorization a substitute for funds made available for construction of municipal sewage treatment systems under the Construction Grants Program. Congress should recognize that the Construction Grants Program has been the major source of funds to the states in the past for sewage treatment facilities and should remain so in the future. In addition, it is especially important that federal funding formulas recognize the severe nutrient enrichment problems typical of estuarine systems like the Chesapeake Bay, by permitting Construction Grants funds to be spent on advanced waste treatment facilities where necessary.

Incidentally, I understand that Congress is considering cuts in EPA's 1984 budget to reduce State program grants under Section 106 of the Clean Water Act to 55% of their previous levels. This cut would severely impact our current efforts on the Chesapeake Bay, among other programs.

In conclusion, I strongly support S. 431 in its recognition of the national significance of the Chesapeake and the necessity for continued state/federal involvement in Bay management. With the language of the section on Chesapeake and Narragansett Bays, Congress would commit itself to action to clean up the Bay.

The EPA Chesapeake Bay Program has developed a state-of-the-art understanding of estuarine systems and approach to management of such systems. Such an approach to Narragansett Bay as called for in Section 117(d) would build on the experience we have gained in Chesapeake Bay and further advance our understanding of estuarine systems.

19-871 O—83——44

STATEMENT OF

WILLIAM L. WEST
DIRECTOR OF ENVIRONMENTAL CONTROL
REPUBLIC STEEL CORPORATION

ON BEHALF OF THE

AMERICAN IRON AND STEEL INSTITUTE

BEFORE THE

ENVIRONMENTAL POLLUTION SUBCOMMITTEE
OF THE UNITED STATES SENATE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

APRIL 14, 1983

Mr. Chairman and Members of the Subcommittee,

I am William L. West, Director of Environmental Control for Republic Steel Corporation. I am appearing here today on behalf of the American Iron and Steel Institute, a trade association which includes 63 domestic corporations representing about 90% of the steel production capacity in the United States.

I wish to present the viewpoints of the American Iron and Steel Institute on proposed bills S. 431 and S. 432 to amend the Clean Water Act. Our industry believes that changes should be made to the Clean Water Act which will not compromise the fundamental goals of the Act. These amendments should modify some of the deadlines in the current Act which have proven impossible to attain and should ease some of the unnecessary burdens that are imposed on our industry and on the nation's economy by the Act. We believe these amendments can simplify the job of attaining the goals of the Act.

Before discussing specific amendments to the Act, I'd like to provide a little background on the steel industry. The steel industry has in the past and continues to support the environmental objectives established by the Congress. The steel industry is committed to carry out responsibly our share of the nation's water pollution control program. Our industry has already invested over $2 billion in facilities for the control of water pollution. We have in place today facilities to control about 95% of all potential pollutant discharges. Only last

month, we completed a settlement agreement with the U.S. Environmental Protection Agency and the Natural Resources Defense Council which finalizes the effluent limitations guidelines for our industry and resolves all court challenges to regulations which were promulgated in May 1982. Under these new effluent limitations guidelines, we will be installing additional facilities to achieve control of over 99% of all the discharges of conventional, nonconventional, and toxic pollutants from our plants. I think our record in the area of water pollution control is one of which we can and should be proud. We clearly recognize our responsibility to continue the work toward further environmental improvement.

However, this nation and the steel industry are faced today with unprecedented economic problems. The American economy is in a severely depressed state. National unemployment is at the highest level since the Great Depression, and the real gross national product of this country actually decreased during 1982. While these conditions affect almost every segment of our society, the steel industry, the nation's most basic industry, has been one of the hardest hit. In 1982, our industry operated at well under 50% of its capacity. Shipments in 1982 were just under 60 million net tons, compared with 87 million tons in 1981 and a record high in 1973 of 111 million tons. Employment in the steel industry in 1982 declined to 299,000, the lowest level since complete records have been kept, starting in 1933. At the end of last year, over 150,000 workers in

the steel industry were on layoff and another 25,000 on short workweeks.

I recognize that this committee is not directly involved with the economy or with other problems of our industry. Nonetheless, these things must be considered in carrying forth this nation's environmental program. We believe that the solution to the nation's economic problems lies, among other things, in modernization of industry to increase productivity and provide jobs. We believe that growth and modernization are fully compatible with rational environmental policies. We would emphasize that new, modern facilities are inherently cleaner and less polluting than older, existing plants. That's why we believe that at this stage of the evolution of the nation's water pollution control program some amendments to the Clean Water Act are essential. These amendments are needed to permit prudent use of our environmental expenditures so that we can achieve a balanced program of economic growth and environmental progress.

Turning to specific amendments to the Clean Water Act, our first and foremost concern is that some compliance dates under the Act must be extended to recognize that current deadlines have become impossible to achieve, both technically and economically. The Clean Water Act at present requires all industrial dischargers to achieve most final requirements by July 1, 1984. One of the premises on which that deadline was set was that effluent limitations guidelines were to have been established by mid 1980. That schedule would have provided for industry a 48-

month period from establishment of the guidelines to completion of facilities. I would point out that establishment of effluent guidelines is only the first step toward final compliance. The second step toward final compliance is incorporation of these guidelines into NPDES permits establishing the requirements for specific plants. Until those two steps are complete, a discharger does not have the necessary information to begin process selection, design, and construction. Based on extensive steel industry experience, we can say that lead time from the establishment of permit requirements to routine operation of complex control systems, the type required for final treatment in the steel industry, is a period of about 36-42 months. Therefore, the period set in the Clean Water Act appeared reasonable at the time it was enacted.

However, for most industries, final guidelines have not yet been issued or were issued only very recently. For the steel industry, EPA promulgated the effluent limitations guidelines in May of 1982, leaving only a 26-month period for issuance of NPDES permits, process selection, design, and construction. Moreover, these guidelines were not resolved such that the permitting process could proceed smoothly until last month when, through the mutual efforts of the Agency, NRDC, and the industry, all appeals were resolved. Now, nearly a year later, most companies in the industry have not yet been issued final NPDES permits, which has shortened the period for achieving compliance even further.

S. 432 amends the Clean Water Act to extend the deadlines for technology based requirements by a period of 42 months after the date of enactment or 36 months after the imposition of specific limits for industrial operation, whichever is later. S. 432 provides for extension of all newly imposed technical restrictions including those under Section 301 (b)(1)(A)(1) of the law as well as those under Section 301(b)(2). Since these newly imposed limitations under Section 301 (b)(1)(A)(1) (modified or redefined BPT) will in most cases be achieved concurrently with the requirements for attainment of limitations set under Section 301(b)(2), we believe that the extension should be applied to all these limitations.

If S. 432 were enacted on July 1, 1983, the bill would provide, for the steel industry, an extension to January 1, 1987. In view of the recent publication of the effluent limitations guidelines and the fact that the states are only now issuing permits for steel plants, the January 1, 1987 date is a realistic deadline. We believe that this amendment represents a sound, practical approach to maintaining the progressive time schedule of the Clean Water Act while recognizing the reality that work cannot start until the limitations are defined in specific permits.

Section 4 of S. 431 also provides for an extension of deadlines and thus appears similar to the provisions of S. 432. There are, however, two significant differences between the provisions of S. 432 and Section 4 of S. 431. S. 431 limits

the extension to only those deadlines set in Section 301(b)(2) of the Clean Water Act, the BAT provisions, and does not provide the necessary extension for modified or redefined BPT conditions under Section 301(b)(1)(A)(1). Furthermore, S. 431 sets the date for BAT compliance as only 3 years after the date such limitations are established but no later than January 1, 1986. In many cases, it is already too late to design and complete a facility by January 1, 1986. This simply is not an adequate extension. For these two reasons, (1) the more complete coverage and (2) the more realistic deadline, AISI favors the language of S. 432 over that of Section 4 of S. 431 in the area of extension of compliance deadlines.

In addition to the extension of compliance deadlines, S. 431 discusses a number of other issues of importance to the iron and steel industry. One of these is Section 7 governing the programs for pretreatment of industrial wastewaters. We believe it quite appropriate that the pretreatment portions of the law be reexamined and completely amended to provide a more workable, practical system of pretreatment permitting. In 1977 the Congress amended the Clean Water Act specifically to provide for the granting of removal credits by a publicly owned treatment works (POTW). EPA's implementation of the removal credit program has resulted in regulations that are so complex and administratively difficult that they tend to discourage rather than encourage cost effective joint treatment of industrial and municipal wastes. Several large operators of POTWs,

the very people who are required to administer the program, have stated that the removal credits regulations are unworkable. In addition, a report by the U.S. House of Representatives Subcommittee on Oversight and Review of the Committee on Public Works and Transportation in the 96th Congress (1980) concluded that the removal credit provision was unworkable.

Moreover, as is noted by Senator Randolph in the Congressional Record of February 3, 1983, S. 432 does not address the important pretreatment issues concerning the problems encountered by industries where diverse manufacturing operations discharge to the same wastewater collection system, requiring the application of two or more of the 21 major industrial effluent limitations guidelines. This results in the practical problem of having to comply with at least two different final compliance dates, identified as "the moving target." Industry is required to meet pretreatment guidelines no later than 3 years after promulgation. Many of these guidelines, however, are yet to be promulgated. As acknowledged by Senator Randolph, it will be impractical, if not impossible, for industry to build new pretreatment plants until all applicable pretreatment guidelines are promulgated.

Although AISI favors making national uniform categorical standards advisory only and limiting EPA's function on pretreatment matters to guidance and oversight, we support the basic concepts in Section 7 of S. 431. With a few essential modifications, Section 7 of S. 431 provides the framework for a workable

pretreatment program that will minimize redundant treatment facilities. AISI believes, however, that unless the language is tailored expressly to limit the actions of U.S. EPA, the same situation that exists with removal credit programs will again be confronted.

One other item on pretreatment. AISI is troubled by the language that would place the burden of delays encountered in submitting the information required for an application and acting upon that application on the industrial dischargers. This is particularly crucial in the event an application is disapproved (which can take two years) since the language provides that the industrial discharger must achieve compliance within 3 years after the categorical pretreatment standards were promulgated regardless of the amount of time remaining after the application is denied.

In view of these problems, we believe that the pretreatment amendments to the Clean Water Act as proposed in S. 431 be reexamined and amended to provide a more workable, practicable system of pretreatment requirements and to provide the time necessary to obtain removal credits and to build required pretreatment systems.

There are several other sections of S. 431 which are of significance to the steel industry. Section 6 dealing with water quality standards is directed at preventing increased pollution in any waterways and maintaining the existing designated uses. The steel industry, let me assure you, does not

favor increased pollution levels in the streams. We do not favor changing properly designated uses of various streams or allowing increased pollution which would prevent a stream from maintaining its presently achieved uses. On the other hand, we know that some present water quality standards were set very high to provide for protection of fish, shellfish, and wildlife and recreation in and on the water, often without adequate analysis as to whether these uses were attainable. EPA in its recent regulatory proposal (47 FR 49234, October 2, 1982) said:

> Some standards reflecting unreasonable stream uses were adopted which either forced overly stringent and costly treatment controls or were simply ignored in the implementation of water pollution control programs.

Thus, some of the designated uses existing on January 1, 1983 do not represent proper uses now attained or even potentially attainable, but are the result of hasty and sometimes improper rulemaking. To perpetuate these mistakes of the past by legislative decree would not be to the advantage of the country or in keeping with the true objectives of the Clean Water Act.

Existing and proposed EPA regulations assure that existing in-stream water uses will be adequately protected. We concur that in-stream uses now attained should, in general, be maintained. The present law adequately covers this. However, where designated uses are unattained and unattainable, forcing their perpetuation would be a misguided legislative effort.

Section 8 of S. 431 would increase the potential civil penalties under the Act from $10,000 to $25,000 per day of violation. We question whether there is any need for such a change. Civil penalties of $10,000 per day are, in our opinion, adequate to assure compliance with the law.

Section 9 of S. 431 is directed at providing greater flexibility in the state NPDES program by permitting the Administrator to approve a plan for a state to administer part of the NPDES program. We concur that increased flexibility in this program is desirable and, thus, we can support the provisions of Section 9.

Section 10 of S. 431 provides that, in any judicial proceeding under Section 509(b) of the Act, the court may award costs of litigation to a prevailing or substantially prevailing party whenever it determines that such an award is appropriate. We cannot support this provision. Under the so-called American Rule, legal fees and court costs in connection with litigation generally lie where they fall, regardless of who prevails and regardless of whether the government is a party to the litigation. There are many policy reasons for this longstanding rule, but perhaps the most compelling one is that a contrary rule, namely requiring the losing party to pay the legal expenses of the prevailing party, would encourage litigation. This obviously would be undesirable in a society that appears to have no reluctance to engage in litigation under the existing rules. Further, there is no cogent reason why the foregoing general

analysis would not apply to environmental suits against the government, whether brought by industry petitioners or environmental group petitioners.

Finally, Section 11 of S. 431 requires that the Administrator shall prepare two reports to the Congress. The first of these is to examine hazardous wastes which are excluded from coverage of Subtitle C of the Solid Waste Disposal Act because they are covered by the pretreatment portions of the Clean Water Act and recommend whether other provisions of the law should be applicable to them. While it is our general belief that there is no significant problem in this area, we would be gratified to see that belief supported by a proper study made by the Administration.

The second report to the Congress would study the effects and methods of control of pollution from non-point sources. We believe that in general most emphasis and certainly most enforcement under the Clean Water Act have been applied toward point sources. Yet, non-point sources are, in many streams, far more significant sources of pollution. Therefore, we would again concur that a proper study of this subject can only improve the nation's clean water program.

We thank you very much for this opportunity to appear before you today and to express our opinions on proposed amendments to the Clean Water Act, specifically Senate bills 431 and 432. We would be happy to provide to the Committee any further information you require, and to provide assistance in drafting even more effective amendments to the Clean Water Act.

American Iron and Steel Institute

1000 16th Street, N.W., Washington, D.C. 20036

May 11, 1983

The Honorable John H. Chafee
Chairman
Subcommittee on Environmental Pollution
Committee on Environment and Public Works
United States Senate
4204 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator Chafee:

When I testified before the Subcommittee on April 14, 1983 as part of the Compliance Dates Panel, several questions were raised on which I was requested to provide additional information. The comments below address those questions as I understand them.

The question was raised why the steel industry favors an extension beyond 36 months after the effective date of the effluent limitation guidelines. First let me state that there are a number of plants which can meet applicable BAT effluent limitations at particular outfalls today. There are, in addition, a number of plants which will be able to meet applicable ELGs at specific outfalls within the 36 month period after the effective date of the regulations. However, it is not true that only four plants in the steel industry may need more than 36 months from the effective date of the regulations. Through the American Iron and Steel Institute a brief analysis was made of the time required for installation of BAT systems at a number of plants. Based on preliminary engineering judgment as to what facilities may be required and without the permits which will provide specific requirements for design purposes, estimates were made for 39 waste treatment facilities of construction and installation schedules ranging from 15 to 42 months from permitting.

I would point out that the key date from which any schedule of design engineering, construction and startup must start is the date on which an NPDES permit is issued for the various outfalls at a specific plant. In spite of the fact that permit applications were submitted in a timely manner and we have been working to get permits, most plants in the industry do not yet have their NPDES permits. As I pointed out in my testimony, the issuance of a permit containing specific effluent limitation requirements for a steel plant is far from a straight-forward "cookbook" application of published effluent limitation guidelines. Consideration of such complex factors as centralized treatment operations, development of BEJ limits for sources not covered by ELGs, water quality standards considerations, and attainment demonstrations for 301(c) and 301(g)

variance requests requires in-depth review and engineering analysis on the part of the permit issuing agency and the permittee. This work is now in progress but it is clear that many permits will not be issued until late in 1983. Only when those permits have been issued can the long process of specific design, engineering, procurement, construction and startup begin. Thus, it is clear that a significant portion of plants in the steel industry cannot complete construction by July 10, 1985 or January 1, 1986.

The Subcommittee also requested my comments about the data submitted by another witness relative to the discharge of toxic materials which would result from an extension of the BAT compliance date. In a table submitted with his testimony, he reported that the iron and steel industry is now discharging in its direct discharges 530,000 lb/month more "toxic" pollutants than allowed by BAT and that it will continue to discharge that amount until the final extended compliance date. The estimated monthly discharge rate in his testimony is based on a report, "Assessment of the Impacts of Industrial Discharges on Publicly Owned Treatment Works," released by EPA in 1981. Neither the estimates of "current" discharges nor the allowable discharge of pollutants at BAT is in agreement with other, more recent reports published by EPA in connection with the promulgation of the effluent limitation guidelines, and none of the estimates corrects for a large quantity of non-toxic pollutants included in the "toxic" totals. Therefore, the monthly rate is subject to question. Furthermore, and of even more significance, his analysis of the totals discharged until the final compliance date is based on the erroneous assumption that all discharges would continue unabated until the final compliance date. This is obviously not a realistic assessment of the actual situation. As I have stated above, there are a number of sources already achieving BAT limitations and other facilities will achieve them before the final compliance date. Therefore, I would conclude that the data he presented are not a meaningful projection.

I believe these comments are responsive to the questions raised at the hearing on April 14. I would be happy to provide any further information you request. Thank you again for the opportunity to present to the Subcommittee our position on this important issue.

Sincerely yours,

William L. West

William L. West
Chairman
Committee on Environment

EFY:jsn

NRDC Clean Water

Statement of

James Taylor Banks
Senior Staff Attorney

before the

Subcommittee on Environmental Pollution

of the

Senate Committee
on
Environment and Public Works

INDUSTRIAL COMPLIANCE DEADLINES UNDER THE CLEAN WATER ACT

April 14, 1983

Natural Resources Defense Council • 1725 Eye Street, NW, Suite 600 • Washington, DC 20006 • 202/223-8210

The question of extending the Clean Water Act's compliance deadlines is not terribly difficult conceptually, but presents extremely important issues and policy choices for the Committee. In this program, unnecessary delays will result in the discharge of many tons of toxic chemicals into America's rivers and lakes. Let us remember that Congress originally intended that industrial sources would achieve controls based on "best available technology" (BAT) by this year, 1983. We are now beginning to talk about 1986 or beyond, and according to EPA estimates, every year of delay will result in over 100 million pounds of excess toxics being discharged to the Nation's waters.

These are huge amounts of toxics. In many areas, those discharges stand between us and achieving the national goals Congress has established. So we should take up this subject carefully and seriously, and we should strive for the smallest possible delays consistent with a responsible, realistic approach that allows industrial sources to meet their obligations.

As we emphasized in the Committee's hearings last summer, there is no disagreement over whether to extend the existing July 1, 1984 deadline for BAT and BCT compliance. Because EPA has delayed issuing its effluent guidelines, most industrial sources cannot meet that deadline. We encourage you to adjust industry's compliance period so as to avoid the Agency's (and the states') present quandry of having to write second-round permits with an

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unrealistic deadline and then fashion extra-statutory solutions such as the old ECSL policy that arose in 1977.

From this obvious need for an adjustment flow three important questions:

(1) should there be a single deadline, or rather a "compliance period" that produces different deadlines for different industries?

(2) what compliance period does industry really need, and what event should trigger that period?

(3) Which requirements (e.g., BAT, BCT, BPJ, BEJ, schedules) should be extended?

The proposals before this Committee differ significantly in how they address these questions.

I. Deadline vs. Compliance Period

We urge the Committee to establish a rolling compliance period for BAT and BCT -- just as the Act currently provides for categorical pretreatment standards (Section 307(b)(1)). This is essential because EPA is issuing BAT regulations according to a phased schedule from January 1981 to March 1984, a range of over three years (see Table 1, below).[1]

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[1] Table 1 presents the promulgation dates for each industrial category, and then compares the effects of each pending amendment with the time that would be permitted under a standard three-year compliance period. In each column, the compliance date is given along with the total elapsed time (in months) from promulgation to compliance. Two columns are presented for Senator Randolph's proposal because S. 432 depends on the date of enactment. We present the relevant dates and compliance periods that would apply if enactment occurred in July 1983 or January 1984.

TABLE 1

Industry	Prelgn.	3 years after promul.		Chafee 1/86		Oberstar 7/86		Randolph 3.5 yrs. aft. enactment 7/83		Randolph 3.5 yrs. aft. enactment 1/84		PPA 7/88	
		cmp/dt	mos.	cmp/dt	mos.	cmp/dt	mos	cmp/dt	mos.	cmp/dt	mos.	cmp/dt	mos.
Timber	1/81	1/84	36	1/86	60	7/86	66	1/87	72	7/87	78	7/88	90
Iron & Steel	5/82	5/85	36	1/86	44	7/86	50	1/87	56	7/87	62	7/88	74
Inorganic	6/82	6/85	36	1/86	43	7/86	49	1/87	55	7/87	61	7/88	73
Textiles	9/82	9/85	36	1/86	40	7/86	46	1/87	52	7/87	58	7/88	70
Pet. Ref.	10/82	10/85	36	1/86	39	7/86	45	1/87	51	7/87	57	7/88	69
Pulp & Paper	11/82	11/85	36	1/86	38	7/86	44	1/87	50	7/87	56	7/88	68
Steam Elec.	11/82	11/85	36	1/86	38	7/86	44	1/87	50	7/87	56	7/88	68
Leather Tann.	11/82	11/85	36	1/86	38	7/86	44	1/87	50	7/87	56	7/88	68
Porc. Ena.	11/82	11/85	36	1/86	38	7/86	44	1/87	50	7/87	56	7/88	68
Coil Coating	12/82	12/85	36	1/86	37	7/86	43	1/87	49	7/87	55	7/88	67
Electrical	3/83	3/86	36	3/86	36	7/86	40	1/87	46	7/87	52	7/88	64
Battery	6/83	6/86	36	6/86	36	7/86	37	1/87	43	7/87	49	7/88	61
Metal Fn.	6/83	6/86	36	6/86	36	7/86	37	1/87	43	7/87	49	7/88	61
Al. Form.	7/83	7/86	36	7/86	36	7/86	36	1/87	42	7/87	48	7/88	60
Copper Form.	7/83	7/86	36	7/86	36	7/86	36	1/87	42	7/87	48	7/88	60
Foundries	8/83	8/86	36	8/86	36	8/86	36	1/87	41	7/87	47	7/88	59
Pharm.	9/83	9/86	36	9/86	36	9/86	36	1/87	40	7/87	46	7/88	58
Pesticides	12/83	12/86	36	12/86	36	12/86	36	1/87	37	7/87	43	7/88	55
Non Ferrous	1/84	1/87	36	1/87	36	1/87	36	1/87	36	7/87	42	7/88	54
Organics	3/84	3/87	36	3/87	36	3/87	36	3/87	36	7/87	40	7/88	52

Any fixed date will give some industries far longer than necessary, and may furnish others too little time to comply. EPA's proposed 1988 deadline, for example, would give sources within the Organic Chemicals industry 51 months, but could allow the Timber Products industry 90 months, and the Steel Industry six years. (EPA selected this date to be consistent with the outside deadline for some municipal sources -- hardly a relevant criterion.)

This result is unjustified and obviously unacceptable when you consider the environmental consequences of delay. As Table 2 illustrates, for example, the difference between a phased, three-year compliance period and EPA's 1988 proposal could amount to over 175 million pounds of excess toxic chemicals discharged to receiving waters.[2] And any other fixed date will have the same kind of consequences -- differing only in degree.

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[2] Table 2 illustrates the effects of delayed compliance. The first column presents EPA's estimates of monthly discharges of toxics after BAT has been achieved. The succeeding columns display the number of months each proposal would allow beyond a standard three-year period, together with the amounts of toxics that would be discharged during the extended period. As with Table 1, two separate columns are provided for S. 432 because it depends on the date of enactment.

Table 2 probably underestimates the wide differences between the Chairman's proposal (S. 431) and other pending bills. Each of the other bills extends compliance for more requirements than S. 431 (BPT and BEJ permits, for example). While the data are not available to estimate the impact of such additional provisions, it seems clear that S. 431 would be even more environmentally protective if these factors could be taken into account.

TABLE 2

Industry	Toxics Discharged After BAT lb/mo	Chafee #mo	Chafee lb toxics	Oberstar #mo	Oberstar lb toxics	Randolph (7/83) #mo	Randolph (7/83) lb toxics	Randolph 1/84) #mo	Randolph 1/84) lb toxics	EPA #mo	EPA lb toxics
Iron & Steel	530,000	8	4,240,000	14	7,420,000	20	10,600,000	26	13,780,000	38	20,140,000
Inorganic Chemicals	46,666	7	326,662	13	606,658	19	886,654	25	1,666,650	37	1,726,642
Textiles	16,083	4	64,332	10	160,830	16	257,328	22	353,826	34	546,822
Petroleum Refining	24,166	3	72,498	9	217,494	15	362,490	21	507,486	33	797,478
Pulp & Paper	8,333	2	16,666	8	66,664	14	116,662	20	166,660	32	266,656
Steam Electric	56,666	2	113,332	8	453,328	14	793,324	20	1,133,320	32	1,813,312
Leather Tanning	6,333	2	12,666	8	50,664	14	88,662	20	126,660	32	202,656
Porcelain Enameling	21,666	2	43,332	8	173,328	14	303,324	20	433,320	32	693,312
Coil Coating	21,866	1	21,866	7	153,062	13	284,258	19	415,454	31	677,846
Electrical	6,666	0	-	4	26,664	10	66,660	16	106,656	28	186,648
Battery	16,672	0	-	1	16,672	7	116,704	13	216,736	25	416,800
Metal Finishing	466,656	0	-	1	466,666	7	3,266,662	13	6,066,658	25	11,666,650
Aluminum Forming	233,346	0	-	0	-	6	1,400,076	12	2,800,152	24	5,600,304
Copper Forming	47,500	0	-	0	-	6	285,000	12	570,000	24	1,140,000
Foundries	174,166	0	-	0	-	5	870,830	11	1,915,826	23	4,017,318
Pharmaceuticals	916	0	-	0	-	4	3,664	10	9,160	22	20,152
Pesticides	2,000	0	-	0	-	1	2,000	7	14,000	19	38,000
Non Ferrous	1,691,666	0	-	0	-	0	-	6	10,149,996	18	30,449,988
Organics	5,950,000	0	-	0	-	0	-	4	23,800,000	16	95,200,000
TOTAL LBS.	9,311,377		4,911,354		9,812,030		19,704,298		63,732,560		175,600,584

For these reasons, we support the basic structure of both the Chairman's bill (S431) and Senator Randolph's proposal (S432). Both provisions utilize, at least in part, the concepts of a rolling compliance period. They differ, however, in the length of the period and the event that triggers it. These are crucial differences that merit the Committee's close scrutiny.

II. The Length of the Compliance Period, and The Trigger

How long does industry really need? Before EPA proposed its 1988 deadline (with a de facto 51-90 month compliance period) and everyone eagerly jumped on the bandwagon, a wide spectrum of interests had said that three years -- 36 months -- is the appropriate period for issuing permits and reaching compliance with BAT effluent guidelines.

EPA stated in 1980 that three years generally are required after BAT standards are set. ("Revised NPDES Second Round Permits Policy," Aug. 24, 1980, at 2). In last year's hearing, Dr. Hernandez went further. In response to Senator Gorton's question, Dr. Hernandez said: "I think that clearly some industries can achieve things within 36 months, others require a shorter period of time." (Hearing Record, Serial No. 97-H58, at 9). Similarly, Mr. Eidsness said: "I think it will vary according to the complexity of the industrial facility. In some

cases it could be as soon as 2 years, in other cases it would be 3 years." (Id. at 8).

The electric utility industry has offered the same conclusion. In a hearing before the House last year, the Edison Electric Institute said "compliance should be required within 3 years following adoption of implementing regulations by EPA. This would allow EPA time to issue the necessary regulations and permits, and industry time to design and install treatment systems efficiently and economically." (Hearing Record, Comm. Print 97-73 at 186).

Refineries can achieve compliance within three years. The American Petroleum Institute said in last year's House hearings that "in most cases, our review of what might be required under BAT, as we think might be proposed, we could comply with a three year date." (Id. at 1008-9).

The American Consulting Engineer's Council (ACEC) said that "we think the quality of design and application of rules to specific industry sites, processes and locations will be improved by giving industry a specific time period to comply after the final rules are published, say within 3 years, rather than by mandating an overall BAT compliance date of 1988. (Id. at 1941).

Other interests have proposed a compliance date of 1987. The National Association of Manufacturers and the Chemical Manufacturers Association (CMA) both have urged Congress to adopt

the 1987 deadline. In practical effect, this date would give their members three years to comply since the BAT regulation for that industry is due in 1984. (In CMA's case, the request later was changed to 1988 after it became clear that EPA would support the longer period).

Other interests have claimed that they need longer than 3 years. The Business Round Table and Repulic Steel, for example, have testified that it takes more than 36 months, perhaps 42, to achieve compliance. And still others simply have endorsed EPA's 1988 proposal, including the American Paper Institute and the American Mining Congress.

We think the weight of responsible opinion supports a three-year period from the promulgation of BAT regulations to the compliance date. As Table 2 indicates, this proposal allows considerably less toxics to be discharged to the environment than other, more lengthy proposals. The Committee should reqiure convincing evidence before permitting anything longer than three years, and we agree with Mr. Eidsness' test against which that evidence should be judged:

> "achieving best available technology as close to the time as the rules are promulgated as is physically possible for industries to construct the needed facilities and control technologies."

(emphasis added)(Sen. Hearing Record, Serial No. 97-H58, at 8.)

In this regard, we note that both S. 431 and S. 432 provide that compliance should be achieved "not later than" the proposed

outside dates. While this formulation suggests that shorter compliance schedules would be appropriate, it omits any firm, clear requirement that they be shorter whenever possible. As Mr. Eidsness suggested, we recommend that the Committee provide for compliance "in the shortest possible time, but not later than" the outside deadlines. This provision would provide a standard to guide the discretion of permit writers and move the permit program toward more expeditious controls on toxics discharges.

Both of the pending bills allow compliance periods that are longer than necessary. S. 431 would allow 3 years from promulgation or January 1, 1986, whichever is later. Table 1 shows that 10 industries would be allowed more than 3 years -- ranging from 60 months for Timber Products to 37 months for the Coil Coating industry. The Steel industry would be allowed 44 months.

S. 432 is more difficult to assess because its compliance period is "triggered" by enactment of Clean Water Act amendments. It provides for compliance 3 years after promulgation of BAT guidelines or 42 months after enactment, whichever is later.

We oppose this "enactment trigger" because it creates a constantly expanding compliance period that is unjustified under any analysis. We think it would be overly optimistic to assume that enactment will occur by mid-1983, only 3 months from now.

Table 2 incorporates this assumption, however, and demonstrates the dramatic difference between S. 432 and other proposals. S. 432 would allow 19 million pounds of excess toxic discharges beyond that provided by a 3-year compliance period, and 15 million pounds more than allowed by S. 431. If enactment does not occur until late 1983, the picture becomes much worse, as Table 2 indicates.

Moreover, as discussed below, S. 432 also would provide an extension for so-called BEJ permits -- those written on the basis of a permit authority's "best engineering judgment" without the benefit of EPA regulations. The standard 36-month compliance period includes the amount of time needed to write a permit (on the average, about 6 months). The compliance period for a BEJ permit need not include this time, however, since the permit already has been issued. Thus, we recommend that the period for BEJ permits be shortened -- 30 months would be appropriate -- to account for this fact.

Finally, there is some question of whether the 36-month period in S432 is "triggered" by promulgation of guidelines or by permit issuance in cases where the permit is based on a guideline. This may be simply a drafting problem in the last line of the bill. If the Committee decides to pursue the course set in S432, which we oppose, this ambiguity should be clarified so that permit issuance is the compliance-period trigger only for

so-called BEJ permits written in the absence of BAT guidelines.

II. The Controls For Which Compliance Is Extended

An important feature which distinguishes S. 432 from other proposals is that it extends deadlines for several requirements in addition to BAT and BCT effluent guidelines. The bill would affect compliance with BPT effluent limitations (established after January 1, 1982) and all case-by-case limits established after January 1, 1982 in permits written on the basis of "best engineering judgment" (BEJ).[3]

We are not troubled with the concept of setting a new compliance period for recently issued BPT regulations. Even though industrial sources were to have met BPT requirements by 1977, the fact remains that EPA established BPT regulations only recently for several industrial categories, including certain segments of the Iron and Steel industry, Inorganic Chemicals, Leather Tanneries, and Pulp and Paper Mills. Sources must have a reasonable amount of time to meet these new requirements.

BEJ permits are a somewhat different matter. Senator

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[3] Because S. 432 refers simply to Section 301(b)(2) of the Act, we are concerned that it might be read to extend deadlines for compliance with pretreatment standards, which are mentioned in subsection 301(b)(2)(A)(ii). On the other hand, the bill refers to "effluent limitations" under Section 301(b)(2), and these clearly are not pretreatment standards. The Committee's bill should be definite on this point: it should not cover pretreatment standards.

Randolph's proposal would extend compliance for any BEJ permit (incorporating BPT, BAT or BCT requirements) issued after January 1, 1982. According to EPA estimates, this provision could affect up to 4000 permits issued last year and, as time passes, many hundreds or thousands more in 1983. The bulk of these permits probably are for so-called "secondary" industrial sources -- those not covered by the Flannery Decree or EPA's BAT-toxics program.

When a BEJ permit is negotiated, the discharger and the permitting authority agree, not only on the discharge limits, but on a compliance schedule to achieve those limits. These permits contain detailed schedules for purchasing, installing and "debugging" the treatment equipment. Like the ultimate permit requirements, these schedules are negotiated by the discharger.

Consequently, BEJ permittees have considered the question of a compliance schedule and made reasoned judgments about their ability to meet a certain date. They have made binding commitments based on those judgments, and have every reason to believe they can meet their schedules.

We see no valid reason to upset what has been negotiated in good faith. The Committee's bill should not affect BEJ permits written in 1982 or, for that matter, the early part of 1983. If these schedules are to be affected at all, the bill should cover only those permits written after the date of enactment.

CMA

CHEMICAL MANUFACTURERS ASSOCIATION

STATEMENT OF

ROBERT C. FORNEY
EXECUTIVE VICE PRESIDENT
E.I. DU PONT DE NEMOURS AND COMPANY

ON BEHALF OF THE
CHEMICAL MANUFACTURERS ASSOCIATION

BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
OF THE
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ON S. 431
THE CLEAN WATER ACT
AMENDMENTS OF 1983

April 14, 1983

2501 M Street, NW • Washington, DC 20037 • Telephone 202/887-1100 • Telex 89617 (CMA WSH)

EXECUTIVE SUMMARY

The Chemical Manufacturers Association (CMA) believes that the country has made considerable progress in water pollution control through implementation of the Clean Water Act in a reasonable and flexible manner. In order to continue this progress, CMA urges Congress to examine how the Act can be improved by directing attention to significant problems and ensuring that the Act addresses them in a sound manner. CMA has the following specific suggestions:

-- Modification of BAT limitations. The treatment technology installed by industry to date has resulted in substantial improvements in our nation's waters. Consequently, uniform implementation of BAT controls is not necessary. Modifications of BAT limitations should be allowed where an adequate environmental study shows that BAT is not necessary to achieve good water quality. Modifications will avoid costly expenditures by industry for treatment technology that will not improve environmental quality. We believe that a workable modification scheme can be established consistent with the nation's commitment to the control of toxic pollutants.

-- Pretreatment. The pretreatment program has centered on national technology-based standards that do not properly take into account the need for such treatment. The result is costly, redundant treatment by both industry and POTWs. The Senate bill, S. 431, recognizes the need for more flexibility in the pretreatment program. CMA supports a

legislative amendment to allow industrial users of POTWs which establish alternative local pretreatment requirements to be exempt from the national categorical pretreatment standards. CMA has several specific suggestions for amendments to S.431 that will help the bill serve its intended purpose.

-- Deadlines for compliance. The Act currently requires compliance with BAT and BCT effluent limitations by July 1, 1984, and EPA's regulations require compliance with pretreatment standards by this date. CMA supports an extension of this deadline to July 1, 1988, in order to allow EPA to complete the task of issuing its effluent limitations guidelines and to afford sufficient time after guidelines are issued to write permits and design and construct treatment facilities to meet the new limitations.

-- Water quality standards. Section 6 of S. 431 would require, at a minimum, that the designated use of water bodies existing on January 1, 1983, be maintained. By forbidding any redesignation to a less stringent use, even where the currently designated use is impossible to attain due to natural conditions, Section 6 of the bill would eliminate essential management flexibility allowed under existing law and regulations. CMA thus opposes this amendment.

-- Non-point sources. Section 11 of S. 431 requires a study of non-point sources of pollution. CMA believes that control of non-point sources is important if the nation is to continue to improve water quality. We thus endorse this study provision. Due to the complexity and importance of the issue,

we suggest that the deadline for the report be extended to two years.

-- Award of fees. CMA sees no need to amend the Act to allow for the award of costs and attorney fees, as provided in Section 10 of S. 431. The Equal Access to Justice Act, enacted in 1980, provides adequate relief to organizations or individuals that could otherwise not afford the costs of litigation.

-- Partial delegation. CMA supports Section 9 of S. 431, which would allow for partial delegation of the NPDES permit program under certain circumstances.

-- Federal common law. Efforts to amend the Clean Water Act to authorize suits against dischargers for abatement or damages based on federal common law, rather than on the specific provisions of the Clean Water Act, should be rejected. The courts are less capable than the Congress or EPA of developing and implementing national environmental policy.

My name is Robert C. Forney. I am an Executive Vice President of the E.I. du Pont de Nemours & Company. Today I am testifying on behalf of the Chemical Manufacturers Association (CMA) on S. 431, the Clean Water Act Amendments of 1983. CMA is a non-profit trade association whose company members represent more than 90 percent of the production capacity of basic industrial chemicals in this country. CMA members are directly and significantly affected by the requirements of the Clean Water Act (CWA), and we are thus vitally interested in the current review of the Act by Congress.

The installation of pollution control equipment by American industry, in many cases prior to the enactment of the Clean Water Act, has brought about major advances in cleaning up and protecting the nation's waters. I am speaking here not only of conventional pollutants such as suspended solids or pH, but also of the toxic or priority pollutants that have been a specific concern since the 1977 amendments. As we reported to this Committee in the last session of Congress, a study completed last year on joint CMA/EPA analyses of samples from industry wastewater treatment systems convincingly demonstrates that widely used biological treatment systems, which EPA has identified as the best practicable technology (BPT) for the organic chemicals industry category, remove a high percentage of most organic priority pollutants.

We believe that much of the improvement in water quality that the country has witnessed results from the flexible and reasonable manner in which EPA and the states

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have implemented the Clean Water Act through the NPDES permit system. CMA urges the Senate to take the occasion of the reauthorization and its consideration of S. 431 to evaluate carefully the progress that industry has made during the past decade in water pollution control and to assess to what extent additional controls on industrial discharges will be necessary or effective to achieve further improvements in water quality.[1]

Current policies under the Act should be examined to ensure that future requirements are imposed in a flexible manner to allow alternative treatment to be used where it will protect the environment. This will avoid devoting industrial capital to expensive treatment systems that will not provide water quality improvements. These principles apply with particular force to the BAT and pretreatment provisions of the Act.

I. MODIFICATION OF BAT LIMITATIONS

A central feature of the Act's control of the discharge of pollutants is the requirement that industrial dischargers to the nation's waters meet a series of increasingly stringent levels of effluent limitations. The 1972 amendments effected a shift from exclusive reliance on water quality controls to technology-based effluent limitations. This reliance on technology may have been sound in 1972. However, after a decade of experience, the time has come to

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[1] See Sections I and V below.

evaluate whether the further application of technology-based effluent limitations will continue to improve water quality or instead will result in treatment for treatment's sake with no appreciable benefit to the quality of the nation's waters.

The Progress Achieved To Date

In the absence of effluent limitations guidelines, most of the first level of technology-based permits, namely BPT permits, were developed on a case-by-case basis using the permit writer's best professional judgment. The record using this process has been a good one. For example, by 1976, the chemical industry had dedicated $1.8 billion for equipment, which cost almost $400 million a year to run. At the end of 1981, America's chemical companies had more than doubled their capital investment in water pollution control to $3.7 billion, and in 1981 it cost $1 billion to operate those facilities. In total, the chemical industry expended nearly $10 billion for the construction, operation and maintenance of water pollution control facilities through 1981.[2]

The treatment already installed by the chemical industry has achieved better than expected results in controlling priority (toxic) pollutants.[3] For example, the CMA/EPA

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[2] Bureau of Census, U.S. Department of Commerce, Annual Reports of Pollution Abatement Costs.

[3] The House Oversight Report states (at pages 29-30) that "[t]he latest information indicates that the 129 'priority pollutants' on which the clean water regulatory program is

(footnote cont'd)

Five-Plant Study completed last year demonstrates that well-designed and well-operated biological treatment systems are effective in removing organic priority pollutants. We reported the results of the study to this Committee last year, but they deserve reemphasis.

The chemical industry undertook the Five-Plant Study to develop a long-term data base on the removal of toxic organics by biological treatment systems, which are the systems used by over 80 percent of the chemical industry. The study included an extensive quality control/quality assurance program to determine the reliability of the laboratory analyses and to assure the proper interpretation of the data base.[4] EPA nominated the five participating plants based upon the expected occurrences of specific organic priority pollutants of interest to EPA.

(footnote cont'd)

primarily focused are less evident in both amounts and concentrations than previously believed." "Implementation of the Clean Water Act," Subcommittee on Oversight and Review, House Committee on Public Works and Transportation ("the House Oversight Report"), Committee Print 96-71, 96th Cong., 2d Sess. (1980). The Oversight Subcommittee found (at page 30) that "to a degree not anticipated, the conventional secondary treatment technologies employed by municipalities and many industries have succeeded in removing most of the priority pollutants in a highly efficient manner." The Report refers (at page 35) to data showing that technology installed to meet BPT limits may be far more effective in removing or degrading toxic pollutants than previously anticipated.

[4] All samples were analyzed using gas chromatography/mass spectrometry (GC/MS) or gas chromatograph (GC) procedures (44 Fed. Reg. 69464, et seq., Dec. 3, 1979) or variations acceptable to EPA's Effluent Guidelines Division.

The study results led to the following major conclusion: data collected during the Five-Plant Study indicate that toxic organic pollutants in all groups (volatiles, base/neutral, and acid) are removed, with few exceptions, to the limit of detection.[5] Organic priority pollutants were removed by 87 percent on the average.[6] A company-wide study by Du Pont, completed in 1978, showed similar high efficiencies of control of priority pollutants.[7] Thus, the wastewater treatment systems installed to meet 1977 BPT requirements have substantially reduced the discharges of organic priority pollutants of concern.

EPA described the results from industrial controls under the Clean Water Act to this Committee on February 5, 1982. "[F]rom 1972 to 1977 implementation of best practicable technology regulations . . . significantly reduced industrial discharges of six key pollutants: biochemical oxygen demand (BOD) by 69 percent; suspended solids by 80 percent; oil and

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[5] Our analysis demonstrates that analytical method precision and accuracy as measured by intralaboratory repeatability, interlaboratory reproducibility and recovery of known spikes remain as the dominant limiting factor controlling the use of toxic organic pollutant data. For example, for a single laboratory, if a volatile organic pollutant were measured in a single sample as 100 ppb, a second analysis of that same sample could yield a result as low as 20 ppb or as high as 500 ppb.

[6] A summary of the results of the CMA/EPA Five Plant Study is contained in Appendix II below.

[7] A summary of this study and the analytical results are contained in Appendix I below.

grease by 71 percent; dissolved solids by 52 percent; phosphate by 74 percent and heavy metals by 75 percent."

The Need For Flexibility

EPA is now about to begin the implementation of the second level of technology, namely BAT controls.[8] CMA believes that the success achieved to date in improving water quality can best be maintained and enhanced if additional flexibility is allowed in the Act. Considering the substantial anticipated costs of across-the-board BAT controls, the uniform requirement of such controls is no longer appropriate in view of the unanticipated significant reductions in discharges of priority pollutants to date. In order to avoid the imposition of costly treatment requirements that are not necessary to achieve good water quality, we recommend that Congress amend the Clean Water Act to allow additional flexibility in the use of BAT effluent limitations. Where water quality circumstances permit, a discharger should be allowed to qualify for alternative BAT effluent limitations.[9] In particular, the Act should be amended to allow for a modification of BAT effluent limitations where

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[8] EPA's proposed BAT effluent limitations for organic chemicals are in part based on the Five-Plant Study discussed above.

[9] Section 301(g) of the Act provides for a modification of the BAT limitations applicable to nonconventional pollutants where such modification will not interfere with the attainment or maintenance of water quality. Section 301(l) of the Act precludes such a waiver for toxic pollutants.

the applicant can show that the resulting discharge of pollutants will not pose an unacceptable risk of harm in the receiving water based on the water's designated use.

Let me illustrate the reason why we continue to urge the Congress to allow alternative limitations to BAT. The Du Pont plant in Beaumont, Texas, manufactures six chemical products and employs 1400 people. The plant utilizes biological treatment along with a variety of wastewater treatment technologies (with a replacement cost of $27 million and a 1982 operating cost of $14 million) to meet its current BPT limitations.

Recently, Du Pont completed a study to measure the impact of this plant on the receiving water, the Neches River, and estimated the costs of compliance with future BAT requirements. Samples of river water above and below Du Pont's Beaumont plant and at the plant's outfall were analyzed for 125 priority pollutants. The results of this study were as follows:

-- Only seven organic priority pollutants were detected in the river, and in each instance the level was too low to quantify.

-- Six heavy metals were detected in the river. In every case, the ranges of concentrations below the Du Pont outfall were essentially the same as those found above the outfall.

The study results show that Du Pont's discharge is a negligible source of priority pollutants in the Neches River.[18]

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[18] A summary of the results of the study is contained in Appendix III below.

In contrast, the costs of meeting anticipated BAT requirements would be large. We estimate that Du Pont would have to spend at least $5 million in new capital and $2 million in annual operating costs to meet BAT requirements at this plant, based on activated carbon treatment of isolated streams. The foregoing study provides evidence that such expenditures are not warranted since further treatment of Du Pont's discharge would not appear to result in any perceptible improvement in water quality. We think it would be a wise policy to allow industry the opportunity to persuade the permit authority that alternate limitations are warranted for such plants.[11] Under the current statute, we cannot do so.

The BAT modification scheme that we propose would operate in a straightforward manner:

1. Application for a modification would be made by the discharger, who would have the burden of proof.

2. The application would be acted on by the NPDES permit-issuing agency -- by the state where there is delegation or (in the absence of delegation) by EPA.

3. The modification would be on a pollutant-by-pollutant basis from BAT effluent limits.

4. The discharger would have to show either that water quality standards are being met (or could be met with the application of additional controls short of BAT), or that its present or proposed

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[11] We recognize, of course, that the Beaumont study was not exhaustive and that additional data might have to be assembled to support such a request, as described below.

discharge levels will not pose an unacceptable risk of harm in the receiving water based on the designated use of such water.

5. The permit writer would exercise judgment in evaluating the necessary data and the merits of modification requests in each particular case.

6. The permit writer may require additional monitoring (including biological testing) as a condition of granting the modification, as circumstances warrant.

7. A BAT modification would not relieve the discharger of any applicable BPT or water quality requirements.

The discharger would be able to make a case for a BAT modification in one of several ways. First of all, if a water quality standard exists for a pollutant that would otherwise be regulated by BAT, then the discharger could seek to establish that the standard is being met -- or could be met with the application of additional controls short of BAT. For example, if total maximum daily loads (TMDLs) have been established for the facility in question, then the applicant could show that the quantity of its discharge of a pollutant is less than the TMDL value. Alternatively, if no TMDL has been established, the discharger could show, by analysis of samples from the water body in question, that the standard for the pollutant is being met.

In situations where a water quality standard has not yet been established for a pollutant of concern, a BAT modification would be appropriate where the applicant can show that its discharge will not pose an unacceptable risk of harm in the receiving water based on the designated use of such water.

This showing could be made on the basis of biological monitoring, or by alternate means.[12] Safe levels could be established in several ways -- for example, by biological studies, by using the acute level and a validated or agreed-upon application factor, or by reference to the scientific literature.

It is neither necessary nor appropriate that the precise scientific requirements for a BAT modification be established in the statute. The permitting agencies should have flexibility to determine what data will be sufficient to establish the absence of an unacceptable risk of harm to the environment on a case-by-case basis. Knowledge of the discharge in question, the pollutants of concern, the nature of the receiving water body, potential affected aquatic organisms and other relevant factors will enable the permitting authorit to make sound judgments on the merits of a modification reques Similarly, the permitting authority is in the best position to determine the need for any other requirements, such as additional conventional or biological testing, that may be appropriate as a condition of granting the BAT modification.

The proposed BAT modification will provide needed flexibility. It would allow some firms that can demonstrate the control of toxics to a level that protects water quality to meet alternate limits instead of the national BAT requirements. An adequate scientific showing will be required to

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[12] See House Oversight Report at 62.

obtain such a modification. The modification process can and should be administered in a manner that avoids protracted proceedings, paperwork and expense for all concerned, while assuring that the environment is protected. Of course, it should be remembered that water quality standards will provide the safety net along with BPT controls already in place.

II. LOCAL CONTROL OF THE PRETREATMENT PROGRAM

The current program for regulating industrial discharges to publicly owned treatment works (POTWs) consists of national technology-based pretreatment standards. However, the mixture of industrial and other discharges to POTWs varies so widely that any water quality problems that exist can better be controlled at the state and local level. The application of uniform EPA categorical pretreatment standards will not appreciably reduce water quality violations, where they exist. The Act should be amended to allow POTWs the opportunity to implement local programs in place of the federal categorical standards.

The Need For Alternative Local Programs

Recognizing that certain industrial discharges can cause interference with the operation of POTWs or the pass-through of wastes that the POTW is not capable of treating, Section 307(b) of the Act authorizes EPA to establish national pretreatment standards. EPA has developed an elaborate and cumbersome pretreatment program to implement this provision.

The most onerous aspect of this program involves the promulgation of national technology-based pretreatment standards applicable to industrial dischargers of toxic and nonconventional pollutants. Typically, these "categorical" pretreatment standards have been identical to BAT effluent limitations guidelines applicable to direct dischargers. In the development of these standards, EPA has given inadequate consideration to the amount of interference with the operation of POTWs and the extent to which municipal treatment systems effectively remove pollutants. Meeting such standards will therefore inevitably require expenditures by industry for treatment that substantially duplicates treatment by POTWs.

To alleviate this problem of redundant treatment, Congress in 1977 provided for modifications of national categorical pretreatment standards to reflect pollutant removals achieved by POTWs. EPA has attempted to implement this provision in regulations that allow POTWs to apply for so-called "removal credits," but the POTWs consider these regulations to be so complex and restrictive that they will not apply for the credits.[13] Without credits, industrial dischargers will be required to install expensive treatment technology to meet

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[13] The House Oversight Report (at page 42) quotes one municipal witness at the Subcommittee's hearings in June 1980 as stating, "'The restrictions and difficulties involved in the granting of removal credits lead to the conclusion that the EPA was never serious about allowing removal credits to industry.'"

pretreatment limits even though the POTW may remove all or most of certain pollutants in the dischargers' effluents.[14]

We believe that the pretreatment program can be strengthened by directing attention to particular problems of interference and pass-through identified in Section 307(b) of the Act, and by placing principal responsibility for pretreatment requirements on the municipalities and states involved. As we noted before this Committee last year, a lengthy report prepared in 1981 by EPA's contractor, JRB Associates, concludes that such a targeted approach would be most effective.[15] The report contains these principal findings:

1. Much progress has already occurred without national categorical standards. Many POTWs have successfully implemented local programs for years. These programs have significantly improved the quality of the nation's waters.[16]

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[14] Data from municipal treatment plant monitoring show that POTW secondary treatment is extremely effective at removing toxic organics. "Fate of Priority Pollutants in Publicly Owned Treatment Works," (EPA-440/1-82/303) (Sept. 1982). This is consistent with the Five-Plant Study results discussed earlier.

[15] JRB Associates, Inc., "Assessment of the Impacts of Industrial Discharges on Publicly Owned Treatment Works" (November 20, 1981).

[16] Table 1-1 of the JRB report illustrates this point. The volume of toxic metals discharged to POTWs has been reduced from 160 million to 56 million pounds per year, a two-thirds reduction, even though industry has not yet had to comply with national categorical standards. This information is based upon EPA Effluent Guidelines Division data that are probably at least one year old, and may be several years old. If this is the case, then actual progress to date is probably even greater than indicated in the JRB report.

2. The problems that exist with respect to water quality or sludge disposal are site-specific and cannot readily be solved by uniform, national standards. As the JRB report notes: "Upsets, bypass, interference and sludge contamination are site-specific problems with site-specific solutions" (at 4-1).[17]

3. The application of national categorical standards will not appreciably reduce the number of water quality violations, where they exist. According to the JRB report, 54 percent of the POTWs discharge at levels meeting EPA's stringent water quality criteria, 27 percent exceed the criteria for one pollutant, and 19 percent exceed the criteria for two pollutants. These water quality concerns should be addressed, but uniform application of national categorical standards is not an effective approach. The reported data indicate that only 61 POTWs (or 7 percent of the total not meeting the criteria)

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[17] The problems and solutions are site-specific in terms of the pollutant(s) of concern, the source(s) of the pollutant(s), the nature of the concern (e.g., water quality, sludge use), and options for addressing the problem. In one case, for example, there might be a sludge use problem caused by cadmium; in another, there might be a water quality problem due to a toxic organic. The problem might be caused by a particular plant or industry, or it might be due to domestic users or storm water runoff. Even if a problem is caused by industrial users, they may or may not be within the 22 specific industry categories that would be subject to national categorical standards -- even if the full pretreatment program were developed by EPA. In most cases, the application of the national standards will miss the mark, being either too stringent or not sufficiently inclusive to do the job. See JRB report at 4-1.

would exceed the criteria after implementation of categorical standards.[18] (See Table 4-3 of the JRB report.)

4. A targeted, local approach is clearly the most cost-effective option, rather than categorical standards.

> Targeted options require control actions only where there are water quality problems, whereas options that are untargeted require control actions regardless of local environmental conditions. [JRB report at 4-4]. Regulation of the POTW provides the opportunity for the POTW to meet its effluent limitations (whether water quality based or technology based) in the most cost-effective manner. [Id. at 4-5].

These findings corroborate the recommendations of the House Oversight Report.[19]

Comments On The Provisions Of S. 431

Section 7 of S. 431 is the starting point for this year's consideration of the pretreatment issue. It permits individual POTWs that meet certain requirements to establish and implement alternative local pretreatment programs in lieu of the federal categorical standards. We agree fully with the concept of allowing POTWs that are doing an adequate job to

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[18] Categorical standards would address only a portion of the pollutants entering POTWs. POTWs also receive pollutants from domestic users, storm water runoff, as well as industrial users not subject to the categorical standards. It is thus unrealistic to think that implementation of national categorical standards will fully address any problems that exist.

[19] The House Oversight Report (at page 62) states that steps should be taken immediately to allow municipal treatment authorities to implement their own pretreatment programs, which would include the establishment of local pretreatment standards. The Report unequivocally recommends that the use of national categorical pretreatment standards be abandoned.

"opt out" of the federal program. Our experience at POTWs that have local programs (as well as with the NPDES permit program) leads us to conclude that effective progress will be made at the local level. We believe, however, that amendments to Section 7 are necessary if it is to accomplish its intended purpose, and we therefore offer the following constructive suggestions.

Eligibility of POTWs. As drafted, Section 7 would have little practical use, because the content and timing of two of the preapplication requirements would exclude most POTWs. Subsections (e)(2)(A)(i) and (ii) require that POTWs have an approved pretreatment program and be in compliance with applicable effluent limitations within 120 days after enactment of the amendments. Based on available information, these conditions would render over 90 percent of the nation's POTWs ineligible to preapply.[20] We urge that these prerequisites for exemptions be addressed at the application stage in subsection (e)(3), rather than as preapplication conditions; this would allow the POTWs additional time to meet whatever eligibility requirements are established. Moreover, even at the application stage, the amendment should simply require

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[20] According to the JRB report, 97 percent of the nation's POTWs do not have approved pretreatment programs. (Appendix at A-45).

[21] We assume that subsection (e)(2)(A)(ii) requires only substantial compliance is intended and that trivial violations would not be grounds for disqualification. This issue might be addressed in the Committee's report.

that the POTW have submitted a general pretreatment program under Section 402(b)(8) of the Act, and the Administrator (or if appropriate the state) have approved, or have not disapproved, the program. As to effluent limits, we suggest that the POTW be in compliance[21] or subject to a schedule for achieving compliance with applicable effluent limitations.

The amendments we suggest will add flexibility so that the bill does not rule out all but a few POTWs. Shifting the program and effluent requirements to the application stage will provide two years' time for POTWs to meet the requirements of the amendments. The provision in subsection (e)(2)(iii) of S. 431 for a schedule of actions to satisfy the application requirements will ensure that progress is made during the two-year preapplication period.

We request that the 270-day time limit for submission of supplemental applications in Section 307(e)(6) be extended to two years, the time allowed for initial applications.[22] We see no justification for placing supplemental applications at a disadvantage by allowing an insufficient period of time. Under the bill as drafted, a supplemental application could be due before the initial application, a result that appears unintended.

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[22] That result could be achieved by simply striking the time limit in this subsection, in which case the general two-year period would apply.

Time for Compliance. CMA endorses the provision in subsection (e)(2)(B) for the issuance of a stay of categorical standards for industrial users of the POTW for a period not to exceed two years. This will allow industrial users subject to final EPA categorical standards the opportunity to comply instead with local requirements that are expected to be approved. We urge the Committee to clarify that a stay should be automatic upon the submission of a satisfactory letter of intent.

CMA also urges that the time for compliance with local limits by affected industrial users be clarified. As drafted, the bill appears to require that industry achieve local numerical limits as soon as the programs are approved by EPA or the state. As the Senate is aware, however, a substantial amount of time (up to 3 years) is often required to plan and install treatment systems needed to meet effluent limitations. The bill should be amended to provide for a reasonable period of time (not to exceed three years) to comply with local limitations.

In addition, the bill should clearly define the time for industrial users to comply in the event that a POTW's application is denied. Subsection (e)(5) of the bill provides that in such cases, industrial users will comply in the shortest possible time, but in no case later than the time specified by Section 307(b)(1) of the Act. The latter reference could be read to refer either to the 3-year period in the

Act or to the calendar date specified in EPA's regulations. The latter interpretation would cause major problems, because in many cases the deadline would have passed or would be close at hand when the stay ends. We urge that subsection (e)(5) be amended to state that industrial users would have a reasonable period of time to comply, not to exceed three years, in the event that an application is denied.

Regulated Pollutants. Under the bill, new Sections 304(g)(3)(C) and 307(e)(3)(A) of the Act would require EPA to list pollutants for which applicants would be required to develop and enforce local numerical limitations on the "amounts and concentrations" of pollutants.[23] The Agency is to list pollutants covered by categorical standards whenever the amount and concentration interferes with, passes through or otherwise is incompatible with the POTW. It is unclear whether this determination is intended to be a national or a local one; in any event it would be difficult for EPA to make such site-specific determinations. We believe that it should be the responsibility of the POTW to set local limits for industry as necessary to address any local NPDES permit, sludge use or water quality problems that exist.

The application requirements in subsection (e)(3)(B) of the bill provide that the POTW must be in compliance with

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[23] We see no reason to restrict applicants to both mass and concentration limits. It is common in both local limits as well as EPA standards to regulate either mass or concentration, but not both.

numerical effluent limitations applicable to each pollutant for which the application is submitted.[24] In many cases, pollutants will not be detectable in the POTW's effluent, or will be present only in trace amounts. Numerical effluent limitations serve no useful purpose in many such cases, yet impose substantial monitoring and regulatory burdens on the POTW. Once again, we urge that the bill allow more flexibility so that the permit writer could regulate those pollutants that occur in significant amounts.[25]

Implementation Of Categorical Standards

S.431 does not address two problems with the national categorical standards that deserve the attention of Congress: removal credits and the combined wastestream formula. In testimony before the Congress over the past two years, municipal authorities have uniformly criticized EPA's removal credit regulations as needlessly complex and unworkable.[26] EPA has taken a step in the right direction with its proposed national removal credit regulations, which provide for "automatic" approval of credits for eligible POTWs discharging the metals covered in the regulations.[27] The Agency should be directed

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[24] As for the water quality requirements in this subsection, see Section IV below.

[25] In addition, the bill should be revised to allow the POTW to be in compliance or subject to a schedule of achieving compliance with the effluent limitations.

[26] House Oversight Report, supra, at 42. See page 6 above.

[27] 47 Fed. Reg. 42698 (Sept. 28, 1982).

to work on this problem further, so that the basic removal credit regulations are sound,[28] and the national credits are extended to a greater number of pollutants.

The combined wastestream formula in 40 C.F.R. § 403.6(e) of EPA's regulations calculates effluent limitations applicable to plants with different processes subject to more than one categorical pretreatment standard. As a result of the formula and EPA's sequential, piecemeal approach to developing categorical standards, complex manufacturing plants are subject to constantly changing effluent limitations. As noted by Senator Randolph in introducing S. 432,[29] plants subject to more than one categorical standard (so-called "integrated facilities") face a moving target since the pretreatment requirements change as EPA promulgates categorical standards. This makes it virtually impossible to properly design a treatment system. We support the solution offered by Senator Randolph, namely to allow integrated facilities to comply three years after the promulgation of the last categorical standard affecting such a facility.

Hazardous Wastes

Section 11 of the bill would add a new subsection 511(f) to the Act to require EPA to report to Congress whether mixtures of hazardous wastes and domestic sewage should be

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[28] The procedures for POTWs to demonstrate removal levels must be simplified.

[29] Cong. Rec. S1011 (daily ed. Feb. 3, 1983).

regulated under Subtitle C of RCRA, or whether other provisions of law are adequate to protect human health and the environment. Although it is not clear to us that a significant problem exists in this area, we realize that there is some concern with "midnight dumping" into sewer systems. CMA condemns such actions. In contrast to "midnight dumping", however, routine wastewater discharges from manufacturing plants to POTWs are already regulated in a comprehensive manner under Section 307(b) of the Clean Water Act and EPA's regulations. EPA is establishing technology-based pretreatment standards applicable to such discharges. In addition, EPA's regulations prohibit the discharge of wastes that interfere with POTW operations or pass through untreated.[38] CMA believes that the Clean Water Act adequately addresses routine industrial discharges to POTWs, and that it is unnecessary and inappropriate to regulate such discharges under RCRA.

III. EXTENSION FOR COMPLIANCE WITH BAT AND BCT EFFLUENT LIMITATIONS

Section 301(b) of the Act requires compliance by July 1, 1984, with BAT and BCT effluent limitations for toxic and conventional pollutants. When this deadline was established, Congress hoped that EPA could issue effluent limitations guidelines promptly, implement these guidelines in NPDES permits, and still allow sufficient time (3 to 3-1/2 years) to

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[38] 40 C.F.R. §§ 403.3(i), (n) and 403.5.

install treatment systems to achieve compliance. This date has become unreasonable in light of the fact that EPA has not been able to promulgate effluent limitations guidelines for many industry categories.[31]

Congress should extend the date for compliance with BAT and BCT limitations in order to allow EPA to complete its task of issuing regulations, and to provide sufficient time for industry to comply with NPDES permit requirements based on published effluent limitations guidelines. We support an extension of the deadline for compliance with BAT and BCT limitations to July 1, 1988.[32]

Sections 4 of S. 431 and S. 432 recognize the above problems with the 1984 deadline and would extend it to three years after such limitations are established, but in no case later than July 1, 1987. While we agree with the general philosophy behind this extension, we believe that a July 1,

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[31] The House Oversight Report notes (at page 29) that then current problems besetting the Agency "call into grave question whether the EPA is truly capable of putting into effect a genuinely workable, legally defensible and cost-effective regulatory scheme with which industry and local government can reasonably be expected to comply within the statutory deadlines." Since then, the delays in promulgating effluent limitations guidelines have continued. The House Oversight Report (at page 62) recommends that this reality "be recognized sooner rather than later," and that the 1984 date for compliance be extended to compensate for EPA's delay in issuing effluent limitations guidelines.

[32] Provision should also be made for an extension of the BAT compliance date on a case-by-case basis if a discharger can show that, despite its good faith efforts, compliance with the limitations by the prescribed date is not feasible.

1988 deadline is warranted. Another year's time will allow EPA to complete its promulgation of guidelines, which have repeatedly been delayed, will allow EPA and the states some time to translate those guidelines into permits for particular facilities, and is likely to avoid the need for Congress to reexamine this deadline again.

In this regard, we reiterate the moving target problem as applied to BAT limitations. Large manufacturing plants face a moving BAT target as EPA promulgates guidelines for various categories. We have discussed this problem in the pretreatment context, and it is of equal concern to direct dischargers.[3] A July 1, 1988 deadline for BAT would alleviate this problem. In addition, consistent with the statutory deadline, permit writers should recognize the need to review all of the guidelines applicable to a facility before establishing BAT permits.

Subsection 4(c) of S. 431 would actually shorten the compliance deadline for non-conventional pollutants from July 1, 1987 to January 1, 1986, as we understand it. This result may not have been intended, but in any event we see no justification for shortening the deadline, particularly in light of the guideline and permitting delays in the program. Indeed, to enable permittees to construct treatment systems to

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[3] See page 24 above. For example, plants in our industry may be subject to EPA guidelines for pharmaceuticals, inorganic chemicals, pesticides, and organic chemicals, each of which is on a different schedule.

meet BAT, BCT and non-conventional limits, and to avoid a moving target problem, there should be a common deadline for compliance with all three sets of limitations.

We also note that S. 431 fails to address Section 301(k) of the Act, which provides for an extension of time to allow for the use of innovative technology. The present deadline in Section 301(k) is July 1, 1987, or three years from the current deadline for BAT and BCT. If this provision is to continue to have vitality, its deadline should be extended to three years beyond the new deadline established by Congress for BAT and BCT.

IV. WATER QUALITY STANDARDS

Section 6 of S. 431 would require, at a minimum, that the designated use of water bodies existing on January 1, 1983, be maintained. As we understand it, the amendment would prevent any downgrading, whether or not the existing uses are now being attained or are capable of being attained. Because the proposed amendment would remove essential management flexibility allowed under current law, CMA opposes this amendment.

EPA's current regulations governing water quality standards, 40 C.F.R. § 35.1550, were adopted in May 1979.[34] These regulations reflect a commitment to anti-degradation but also allow some flexibility where existing uses cannot be

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[34] 44 Fed. Reg. 30016, 30025 (May 23, 1979).

attained. The regulations require that water quality standards be established which will result in achievement of the national water quality goal in Section 101(a)(2) of the Act wherever attainable. The states are required to maintain those water uses which are currently being attained and to develop a statewide anti-degradation policy.[35] On the other hand, the current regulations recognize that under some circumstances the uses in existing water quality standards are not achievable. For example, the designated use may not be attainable due to natural background or irretrievable man-induced conditions. Under these circumstances, the states should be able to downgrade existing designated uses; current regulations permit downgrading in these circumstances.[36]

The requirement that designated uses existing as of January 1, 1983, be maintained at a minimum would have the effect of invalidating the current EPA regulations that allow for limited downgrading where existing uses cannot be attained due to natural conditions. We urge that Congress not revoke this sound regulatory provision, which simply allows the states to recognize when they have required the impossible.[37] It is one thing to prevent degradation of water quality that has

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[35] Id. §§ 1550(c)(1), (c)(2) and (e)(1).

[36] Id. § 1550(c)(3).

[37] CMA supports some modifications to the current regulations, but at minimum the existing flexibility should be preserved.

actually been achieved; it is quite another matter inflexibly to adhere to a standard that is impossible to attain.

It is important to understand the recent history of the water quality standards program in order to appreciate the difficulty faced by the states and the regulated community. Until recently, the states have had water quality standards for conventional parameters, but few toxic pollutants have been subject to standards. The states have designated most streams on the basis of prior understandings of what is required, for example for fishable and swimmable waters.[38] In 1980 EPA completed an extensive proceeding in which new criteria for 64 toxic pollutants were established at very stringent levels.[39] The impact of the new criteria cannot be fully assessed, since there are only limited data on the presence of these pollutants in water bodies across the country. However, it is clear that some of the premises upon which the states made prior water use designations may change as the new criteria are implemented. Therefore, this is a particularly inappropriate time to "freeze" prior designations made by the states.

In addition, Section 6 of the bill is contrary to the basic philosophy embodied in the Clean Water Act to give

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[38] Some states established water quality standards as goals rather than as achievable limitations.

[39] 45 Fed. Reg. 79318 (Nov. 28, 1980). See also Section V below concerning non-point sources.

the states primary authority to designate uses for various water bodies and to establish water quality standards appropriate to those uses. Section 303(c) of the Act provides that water quality standards shall consist of designated uses of water bodies and water quality criteria based upon such uses. The Act does not authorize the imposition of a national standard. Section 303(a) of the Act incorporates prior law, which expressly envisioned the classification of waters for multiple uses. Sections 101(b) and (g) of the Act also reflect the policy of Congress to preserve the primary responsibilities of the states to prevent and reduce pollution, and to plan the development and use of land and water resources.

In summary, CMA opposes the prohibition in S. 431 of downgrading where existing uses cannot be attained, and sees no reason for legislation to amend the water quality provisions of the Act at this time.

V. NON-POINT SOURCES AND OTHER STUDIES

Section 11 of S. 431 requires EPA to conduct a study of the effects and methods of control of pollution from non-point sources and to report the result to Congress within one year. We agree that such a study should be made and should be adequately funded. To allow EPA sufficient time to address this complex subject, we suggest that the deadline for the report be extended to two years from enactment of the amendments. CMA also urges that Congress specifically direct

EPA to study and report on the relative contribution of point and non-point source pollution.

Pollution control by industry over the past decade has resulted in major improvements. When viewed as a whole, industrial discharges no longer pose major environmental stress. In contrast, significant sources of non-point pollution, such as runoff from farms and urban areas, have not yet been effectively controlled.** As a result, we believe that more stringent controls on industry will not result in appreciable gains in water quality. On the other hand, further progress in improving water quality can be made in a comprehensive and effective manner if prompt attention is given to non-point source pollution and its control. The study in Section 11 of the bill will provide information needed to assess the direction of future efforts.

Section 3 of the bill contains provisions for further study of the water quality of the Chesapeake and Narragansett Bays. CMA supports this provision. We believe that progress can best be made by examining water bodies with care, assessing the different sources of pollution (including non-point sources), and considering abatement options that will most rationally address any problems that exist.

** See "National Water Quality Goals Cannot Be Attained Without More Attention To Pollution From Diffused Or 'Nonpoint' Sources," Comptroller General of the United States (Dec. 20, 1977).

VI. AWARD OF FEES

Section 10 of S. 431 would amend the Act to allow for the award of fees and costs of litigation, including reasonable attorney and expert witness fees, to a prevailing or substantially prevailing party. Although some statutes have provided for such awards, the American tradition has been that each party pays its own litigation costs.[41]

It is possible that the proposed amendment was intended to provide for statutory recovery of costs and fees to reduce the expenses for persons or groups that would otherwise be financially unable to afford the costs of litigation. The 1980 Equal Access to Justice Act accomplishes precisely that objective by allowing eligible prevailing parties to recover litigation costs, and in addition to recover expenses in connection with agency administrative proceedings.[42] We believe that the Equal Access to Justice Act presently provides adequate relief to persons or groups of modest means and we see no need to provide any broader funding for litigation under the Clean Water Act.

VII. PARTIAL DELEGATION

Section 9 of S. 431 would allow partial delegation of the NPDES permit program under certain circumstances. As

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[41] See Alyeska Pipeline Serv. Co. v. Wilderness Society, 421 U.S. 240 (1975).

[42] 5 U.S.C. § 504. To be eligible, a party must have a net worth of less than $5 million and have no more than 500 employees. Id., § 504(b)(1)(B).

we understand it, the provision would address a special situation that exists in a few states, such as Texas, where under state law a state agency does not have jurisdiction over all discharges in the state. We support Section 9 as drafted to deal with this particular problem.[83]

VIII. ESTABLISHING FEDERAL COMMON LAW

There have been efforts to amend the Clean Water Act to allow suits against dischargers for abatement and damages based on federal common law.[84] Such abatement orders and damages would be authorized even when a discharger is in full compliance with all applicable requirements of the Clean Water Act. Efforts to amend the Act to provide for such common law liability should be rejected. A discharger in compliance with a permit issued under the Clean Water Act should not be subject to unlimited damages based upon some ill-defined concept of federal common law.

It is CMA's understanding that amendments to the Clean Water Act to authorize common law liability would be intended to overturn the precedent of the Supreme Court in Milwaukee v. Illinois, 451 U.S. 304 (1981), which limited the authority of federal courts to develop substantive common law. The Court held that the Clean Water Act is comprehensive

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[83] CMA would oppose, however, a broad provision that would allow the states or EPA to pick and choose which components of the program would be delegated.

[84] Amendment No. 542 to S. 1716, 97th Cong., 1st Sess. (1981).

legislation regulating all point sources through the issuance of permits and that it would be "quite inconsistent" with this scheme for federal courts to devise their own law governing such discharges, under the guise of common law, after permits have been issued and permittees have been planning and operating in reliance on such permits. (451 U.S. at 326).

The decision of the Supreme Court in Milwaukee v. Illinois is grounded in fundamental principles of federalism as well as sound practical considerations. Federal authority should be exercised through statutes enacted by Congress and administered by federal agencies. The courts are less capable than the Congress to develop national policy in areas where Congress has enacted comprehensive legislation. The decision by the Supreme Court places reasonable limits on the court's exercise of jurisdiction. It would be anomalous to repeal this decision at a time when concern over the extent of the federal judicial power has been voiced by the administration, the public and by many members of Congress.

In addition, the growth of federal common law apart from federal statutes introduces an unacceptable degree of uncertainty as to federal standards of conduct and remedies. A permittee in compliance with Clean Water Act requirements should not have to fear that it may be subject to a federal suit for a complying discharge on grounds of common law nuisance. Such undefined liability could lead to chaos, rendering the permit process meaningless. Congress should

therefore reject any efforts to amend the Act to authorize such federal common law liability.

CONCLUSION

This testimony discusses key areas in which Congress should reassess and modify current provisions of the Clean Water Act to make it a more workable vehicle for protecting the environment in a reasonable manner. CMA is prepared to cooperate with the Congress to address these issues in a constructive manner.

APPENDIX I

ANALYSIS OF DU PONT PLANT SITE WASTEWATERS FOR PRIORITY POLLUTANTS

In 1978 the Du Pont Company embarked on a Company-wide sampling and analytical program for 128 of the 129 "priority pollutants" in plant intake, outfall, raw waste, and treated effluent streams at 72 manufacturing sites. This program was completed at substantial cost in 1979. The analytical work was performed by the Acurex Corporation of Mountain View, California, using EPA methods. Generally each plant had a single sampling campaign; our large number of plants provides a sizable data base.

Over 36,000 analytical results (128 analyses on each of 285 samples) were compiled and evaluated. In general the report provides convincing evidence that Du Pont's present treatment facilities do an excellent job of priority pollutant control.

Data from activated sludge facilities provide one example of this control. Du Pont now treats essentially all of its discharges from the Organics, and Plastics and Synthetics Manufacturing Point Source Categories by activated sludge technology. The study showed that concentrations of 300 ppb or less (proposed as the BAT limit for priority pollutants in another industry) were achieved in 99.6% of the analyses on 23 samples of activated sludge effluents.

The Du Pont Company believes that not only activated sludge but also the other biological and physical-chemical treatment practices employed at our plants are doing the job for priority pollutant control. The median analytical result for all final outfalls is less than 20 ppb for each pollutant which was detected. The frequency at which pollutants were found at levels above 1,000 ppb was 0.3% of all final outfall analyses when those not detected are included in the calculation.

The analytical methods used were intended more for screening effluents for the presence of various compounds, rather than a precise determination of concentrations. Consequently, the values might be stated better as detected rather than in precise numbers, especially for concentrations less than 100 ppb.

ANALYSES OF DU PONT SITE WASTEWATERS FOR PRIORITY POLLUTANTS*

INORGANICS

Compound	Waste Treatment Influent		Waste Treatment Effluent		Final Outfall	
	Frequency of Detection	Geometric Mean (ppb)	Frequency of Detection	Geometric Mean (ppb)	Frequency of Detection	Geometric Mean (ppb)
Antimony (total)	22	26	29	20	60	14
Arsenic (total)	22	15	20	29	44	16
Beryllium (total)	8	2	6	1	19	1
Cadmium (total)	23	2	21	1	54	1
Chromium (total)	37	98	35	29	83	24
Copper (total)	39	55	36	22	98	30
Lead (total)	26	27	22	30	65	15
Mercury (total)	10	2	7	1	31	3
Nickel (total)	22	79	23	44	49	41
Selenium (total)	20	26	21	20	40	20
Silver (total)	25	2	27	2	72	2
Thallium (total)	2	13	5	4	10	6
Zinc (total)	38	281	38	143	96	98
Cyanides	35	16	38	13	93	9

*Note: A total of 201 wastewater samples were analyzed in this study; 42 samples of waste treatment influents, 43 samples of waste treatment effluents, and 116 samples of final outfalls.

VOLATILE ORGANICS

Compound	Waste Treatment Influent		Waste Treatment Effluent		Final Outfall	
	Frequency of Detection	Geometric Mean (ppb)	Frequency of Detection	Geometric Mean (ppb)	Frequency of Detection	Geometric Mean (ppb)
Benzene	18	15	9	6	30	6
Bromoform	4	8	3	6	9	11
Carbon Tetrachloride	6	20	5	6	18	24
Chlorobenzene	5	38	3	42	5	7
Chlorodibromomethane	5	21	4	6	9	17
Chloroethane	0	ND	0	ND	1	2
Chloroform	30	21	29	10	85	15
Dichlorobromomethane	15	10	8	9	24	5
Dichlorodifluoromethane	0	ND	0	ND	1	200
1,1-Dichloroethane	0	ND	0	ND	4	11
1,2-Dichloroethane	2	2	3	14	10	7
1,1-Dichloroethylene	1	75	1	200	5	37
1,2-T-Dichloroethylene	0	ND	1	10	10	22
1,2-Dichloropropane	1	16	0	ND	6	13
1,2-Dichloropropylene	0	ND	0	ND	2	3
Ethylbenzene	11	18	4	28	17	10
Methylene Chloride	27	44	21	30	73	27
Methyl Chloride	3	31	2	7	7	17
1,1,2,2-Tetrachloroethane	1	5	1	1	9	6
Tetrachloroethylene	12	15	5	8	22	9
Toluene	19	29	11	21	35	26
1,1,1-Trichloroethane	9	6	16	6	38	9
1,1,2-Trichloroethane	0	ND	0	ND	4	7

Compound	Waste Treatment Influent		Waste Treatment Effluent		Final Outfall	
	Frequency of Detection	Geometric Mean (ppb)	Frequency of Detection	Geometric Mean (ppb)	Frequency of Detection	Geometric Mean (ppb)
Trichloroethylene	4	12	2	6	18	9
Trichlorofluoromethane	2	8	1	50	3	14
Vinyl Chloride	0	ND	0	ND	1	20

ND - not detected

EXTRACTABLE ORGANICS

Compound	Waste Treatment Influent		Waste Treatment Effluent		Final Outfall	
	Frequency of Detection	Geometric Mean (ppb)	Frequency of Detection	Geometric Mean (ppb)	Frequency of Detection	Geometric Mean (ppb)
Acenaphthene	1	12	0	ND	1	1
Benzo(ghi)perylene	0	ND	0	ND	1	8
Bis(2-chlorethoxy)methane	0	ND	0	ND	2	28
Bis(2-chlor 1-prop)ether	1	80	0	ND	0	ND
Bis(2-ethylhexl)phthalate	22	14	26	8	72	6
Butyl Benzyl Phthalate	8	13	8	4	14	4
2-Chloronaphthalene	0	ND	0	ND	2	5
Chrysene	1	1	0	ND	0	ND
Di-N-Butyl Phthalate	9	5	14	2	35	3
1,2-Dichlorobenzene	3	15	3	76	8	11
1,3-Dichlorobenzene	1	3	0	ND	0	ND
1,4-Dichlorobenzene	4	5	1	110	5	6
Diethyl Phthalate	4	5	10	3	22	3
Dimethyl Phthalate	10	5	6	10	15	4
2,4-Dinitrotoluene	1	7	6	8	7	6
2,6-Dinitrotoluene	0	ND	2	27	2	6
1,2-Diphenylhydrazine	0	ND	0	ND	1	9
Fluoranthene	3	1	0	ND	3	2
Fluorene	1	16	0	ND	2	1
Hexachlorobenzene	0	ND	0	ND	1	1
Indeno(1,2,3-C,D)Pyrene	0	ND	0	ND	1	3
Isophorone	2	35	1	10	1	2
Naphthalene	4	94	1	2	8	4

Compound	Waste Treatment Influent		Waste Treatment Effluent		Final Outfall	
	Frequency of Detection	Geometric Mean (ppb)	Frequency of Detection	Geometric Mean (ppb)	Frequency of Detection	Geometric Mean (ppb)
Nitrobenzene	1	4,000	2	34	0	ND
N-Nitrosodiphenylamine	1	1	1	1	5	6
Phenanthrene	4	11	2	11	10	3
Pyrene	5	2	0	ND	4	2
1,2,4-Trichlorobenzene	0	ND	1	130	1	4
4-Chloro-M-Cresol	1	37	0	ND	0	ND
2-Chlorophenol	1	19	1	2	3	9
2,4-Dichlorophenol	1	10	2	2	5	2
2,4-Dimethylphenol	3	255	1	40	3	4
4,6-Dinotro-o-Cresol	1	150	1	6	0	ND
2,4-Dinitrophenol	1	30,000	0	ND	1	10,000
2-Nitrophenol	4	259	2	14	3	10
4-Nitrophenol	4	290	3	21	7	11
Pentachlorophenol	1	2	2	2	2	2
Phenol	19	47	6	19	20	10
2,4,6-Trichlorophenol	0	ND	1	2	3	5
Acrolein	1	14,000	0	ND	0	ND
Acrylonitrile	1	165,000	0	ND	0	ND

ND - not detected

APPENDIX II

CMA/EPA FIVE PLANT STUDY

An analysis was conducted by Engineering-Science, Inc. (ES) for the Chemical Manufacturers Association (CMA) on the data base developed by a cooperative study among CMA, the U.S. Environmental Protection Agency (EPA), and five organic chemical plants that participated in this project. The study was a substitute for the 530 plant, 30 day, self-monitoring program that EPA proposed in a Federal Register notice of October 10, 1979.

The study was structured to develop a long-term (4 to 6 days/week) for 4 to 6 weeks) data base on the removal of priority organics by representative, well-designed and operated biological treatment plants within the organic chemicals industry. EPA through contract laboratories analyzed all of the samples. A CMA contractor analyzed about 25 percent and four of the participating plants analyzed from 25 to 100 percent of the samples. Each plant also analyzed influent and effluent samples for selected conventional and nonconventional pollutants.

An extensive quality control/quality assurance program was incorporated into this effort to assure that the reliability of the analytical results could be properly defined.

Based upon the study results, the following major conclusions were drawn from the CMA report:

- Data collected indicate that priority organic pollutants in all groups (volatiles, base/neutral, and acid) are removed, with few exceptions, to or below the 10 parts per billion detection limit accepted in this study. Thus, one can conclude that the five biological wastewater treatment facilities installed to meet BPT provide sufficient removal of most priority organic pollutants to be designated as BAT technology consistent with the Clean Water Act of 1977.

- Analytical method precision and accuracy as measured by intralaboratory repeatability, interlaboratory reproducibility and recovery of known spikes remain as the dominant limiting factor controlling the use of priority organic pollutant data. For example, for a single laboratory, if a volatile organic pollutant were measured in a single sample as 100 ppb, a second analysis of that same sample could yield a result as low as 20 ppb or as high as 500 ppb.

- Analysis of the study results provides strong confirmation that conventional and nonconventional pollutants cannot be used as indicators of the presence of priority organic pollutants in biologically treated effluents from the organic chemicals industry.

APPENDIX II

CMA FIVE PLANT STUDY
TREATMENT SYSTEM PERFORMANCE FOR ORGANIC PRIORITY POLLUTANTS

Compound	Waste Treatment Influent Geometric Mean (ppb)	Number of Detections	Waste Treatment Effluent Geometric Mean (ppb)	Number of Detections	Percent Removal
			VOLATILE POLLUTANTS		
Acrylonitrile	10,300	47	65	3	99
Benzene	581	129	6	58	99
Bromomethane	1,250	9	ND	0	100
Bromodichloromethane	20	29	5	9	75
Carbon tetrachloride	51	3	ND	0	100
Chlorobenzene	20	29	16	1	20
Chloroethane	12	19	5	2	58
Chloroform	348	63	13	62	96
Dibromochloromethane	6	22	ND	0	100
1,1-dichloroethane	9	22	5	1	44
1,2-dichloroethane	524	73	9	64	98
1,1-dichloroethene	42	53	ND	0	100
t-1,2-dichloroethene	42	7	5	3	88
1,2-dichloropropane	138	54	7	27	95
1,3-dichloropropene	148	47	6	19	96
Ethylbenzene	283	107	5	25	98
Methylene chloride	17	61	9	58	47
1,1,2,2-tetrachloroethane	17	2	5	1	71
Tetrachloroethene	6	31	5	3	17
1,1,1-trichloroethane	7	38	5	19	29
1,1,2-trichloroethane	12	15	5	1	58
Trichloroethene	7	31	5	19	29
Trichlorofluoromethane	ND	0	8	4	-
Toluene	4,500	112	7	51	100
Vinyl chloride	6	4	ND	0	100
All Volatile Pollutants	166	1,007	8	430	95

Compound	Waste Treatment Influent Geometric Mean (ppb)	Number of Detections	Waste Treatment Effluent Geometric Mean (ppb)	Number of Detections	Percent Removal
		BASE/NEUTRAL POLLUTANTS			
Acenaphthene	84	9	5	2	94
Acenaphthylene**	65	10	5	3	92
Anthracene[1]/Phenanthrene[1]	62	14	6	6	90
Benzo(a)anthracene[2]/ Chrysene[2]	20	10	8	6	60
Benzo(b)fluoranthene[3]/ Benzo(k)fluoroanthene[3]	11	10	11	7	0
Benzo(a)pyrene	13	11	18	2	-
Bis(2-ethylhexyl)phthalate	24	47	28	44	-
Butylbenzylphthalate**	12	5	5	1	58
Chrysene	ND	0	5	1	-
Dibenzo(a,h)anthracene	15	1	75	1	-
Di-n-butylphthalate	86	44	6	24	93
1,3-dichlorobenzene[4]/ 1,4-dichlorobenzene[4]	5	1	ND	0	100
1,2-dichlorobenzene	331	43	28	17	92
Diethylphthalate**	134	36	9	19	93
Dimethylphthalate	46	31	5	8	89
Dioctylphthalate	28	6	5	3	82
Fluoranthene	17	19	6	7	65
Fluorene	56	10	5	1	91
Isophorone	650	1	ND	1	100
Naphthalene	802	11	6	5	99
Nitrobenzene	3,000	32	91	2	97
Pyrene	17	19	6	10	65
1,2,4-trichlorobenzene**	234	46	39	39	83
All Base/Neutral Pollutants	119	416	15	208	87
		ACID POLLUTANTS			
4-chloro-3-methylphenol	ND	0	8	2	-
2-chlorophenol	53	57	35	23	34
2,4-dichlorophenol	347	43	24	33	93
2,4-dimethylphenol	270	12	5	8	98

Compound	Waste Treatment Influent Geometric Mean (ppb)	Number of Detections	Waste Treatment Effluent Geometric Mean (ppb)	Number of Detections	Percent Removal
		ACID POLLUTANTS (CONT'd)			
2,4-dinitrophenol	673	44	39	6	91
2-nitrophenol	40	38	9	4	78
Pentachlorophenol	216	49	115	57	47
Phenol	171	137	10	55	94
2,4,6-trichlorophenol	100	89	53	72	47
All Acid Pollutants	150	469	34	260	77

1,2,3,4 - Reported as isomer pairs

ND - not detected

** - There was some question in the proper identification of these compounds in some of the samples, based on the following information:

(1) 1,2,4-trichlorobenzene - most likely the co-isomer, 2,4,6-trichlorobenzene, which is not on the priority pollutant list.
(2) Diethylphthalate - interference with dimethyl nitroaniline which coelutes with the phthalate ester.
(3) Acenaphthylene - interference with dichloroaniline or biphenyl which coelutes with acenaphtylene.
(4) Butylbenzylphthalate - most likely a product from a manufacturing process and not the phthalate ester.

APPENDIX III

PRIORITY POLLUTANTS DETECTED IN THE BEAUMONT PLANT NECHES RIVER SAMPLING AND ANALYTICAL PROGRAM
(All Data in µg/l)

"Only Detected Priority Pollutants Are Listed"

Pollutant[1]	Upstream Stations: No. 1 - 12 Miles	Upstream Stations: No. 2 - 1.5 Miles	Plant Outfall No. 3	Downstream Stations: No. 4 - Mixing Zone	Downstream Stations: No. 5 - 1.5 Miles
Volatile Organics					
Acrolein	[2]		11/<10[3]		
Acrylonitrile			14/<10	<10/<10	
Benzene			10/<10		
Bromodichloromethane			100/79		
Carbon tetrachloride			1300/1500		
Chloroform		<10/<10	740/450		<10/ND[4]
Dibromochloromethane			39/23		
1,2-Dichloroethane			<10/<10		
1,2-Dichloropropane			41/18		
Tetrachloroethene			<10/<10		
Toluene	ND/<10	ND/<10			
Semi-Volatile Base/Neutrals					
Bis(2-ethylhexyl)phthalate	<10/<10	<10/<10	<10/<10	ND/<10	ND/<10
Dibutyl phthalate	ND/<10	ND/<10		ND/<10	ND/<10
Diethyl phthalate	ND/<10				
Dimethyl phthalate	<10/ND				
Semi-Volatile Acids					
2,4-Dinitrophenol			340/400		
2-Nitrophenol			<5/<5		
Pentachlorophenol			<5/ND		
Phenol			<5/ND		
Metals					
Antimony		12/6		3/7	9/10
Beryllium	3/ND				ND/0.3
Chromium			100/100		
Copper	11/17	37/42	26/18	37/18	44/37
Mercury		ND/0.2			
Silver		65/47		33/37	73/37
Zinc	69/14	30/17	63/67	63/ND	27/41
Other Compounds					
Total phenolics			ND/30		

Notes:

(1) All currently listed priority pollutants were analyzed; only those detected at least once are listed here.

(2) Blank indicates pollutant undetected for both sample days.

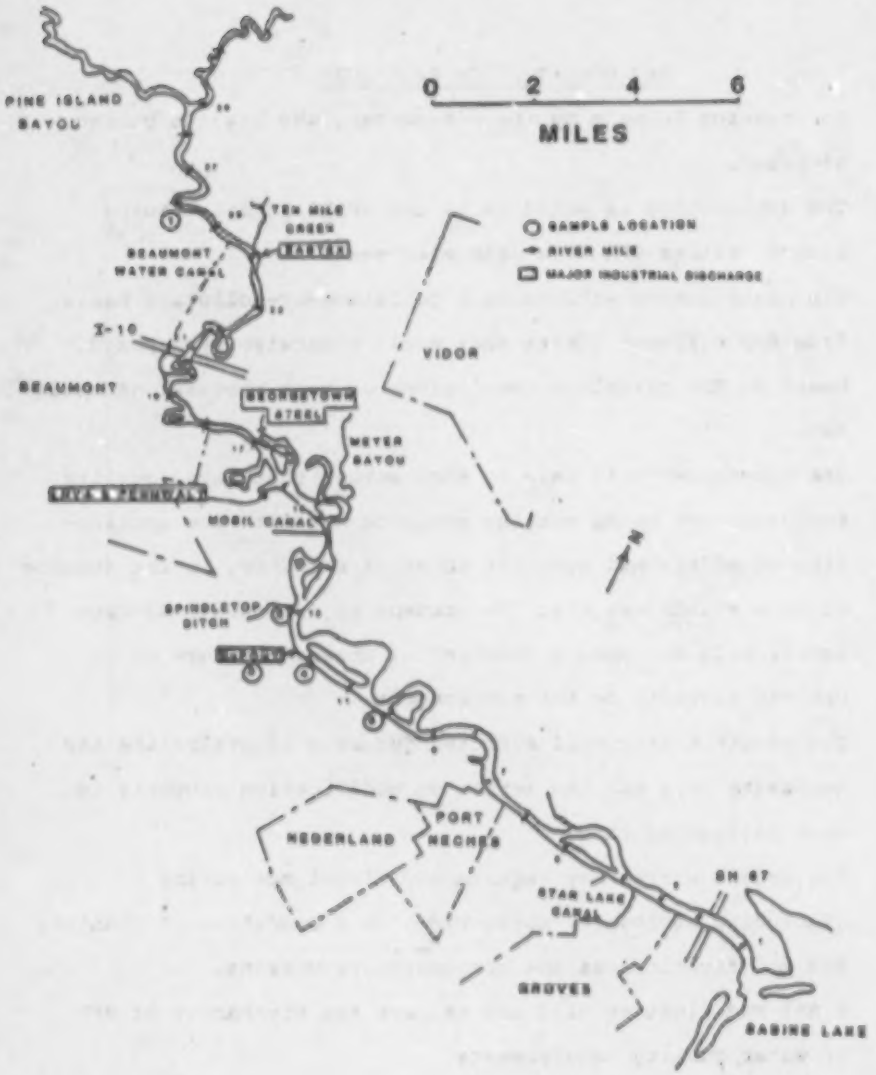
(3) Left-hand number - July 26-27 sample results.
Right-hand number - July 28-29 sample results.

<10 - pollutant detected but not in sufficient concentration for accurate quantification.

(4) ND - not detected

NECHES RIVER STUDY AREA

FIGURE 1



APPENDIX IV

BAT MODIFICATION PROCEDURE

1. Application is made by the discharger, who has the burden of proof.
2. The application is acted on by the NPDES permit issuing agency, either EPA or a delegated state.
3. The modification will be on a pollutant-by-pollutant basis from BAT effluent limits that would otherwise by imposed, based on EPA guideline regulations or best professional judgment.
4. The discharger will have to show either that water quality standards are being met (or could be met with the application of additional controls short of BAT), or, in the absence of such standards, that its present or proposed discharge levels will not pose a substantial threat of acute or chronic toxicity to the environment.
5. The permit writer will exercise judgment in evaluating the necessary data and the merits of modification requests in each particular case.
6. The permit writer may require additional monitoring (including biological monitoring) as a condition of granting the modification, as the circumstances warrant.
7. A BAT modification will not relieve the discharger of BPT or water quality requirements.

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VP-10830 REV. 10-81

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE 19898

EXECUTIVE VICE PRESIDENT

April 29, 1983

The Honorable John H. Chafee, Chairman
Subcommittee on Environmental Pollution
Committee on Environment and Public Works
SD-410 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Chafee:

RE: Clean Water Act Testimony

During the panel discussion on compliance deadlines at the April 14 hearing, Senator Mitchell asked the industrial witnesses to comment on Table 2 in the NRDC statement. Our review is attached. To summarize, whereas NRDC claims that the "toxics" in direct discharges will be reduced by 112 million pounds per year in going from current levels to BAT, we believe that the correct annual figure is more like 16-20 million pounds. This lower total results principally from refinements in the organics and plastics industry component. I recognize that either amount cannot be ignored. I do feel, however, that the data available -- albeit limited -- do not indicate any widespread toxics problem in our nation's waters. We believe there are a number of situations which could be proven to show that current water quality (from a toxic as well as conventional pollutant standpoint) is quite satisfactory and that further application of pollution control technology may not accomplish anything.

You also asked witnesses at the April 14 hearing whether deadline extensions should be applicable to existing permits which were established using best engineering judgment. We surveyed CMA member companies and found no need for such extensions. The only situation we can envision where an extension might be warranted is where a permitting agency insisted on compliance by July 1, 1984 even though installation of control facilities cannot be accomplished by then. We are not aware of such a case.

In addition to the discussion of effluent loadings, I am returning the transcript of the April 14 hearing with a

Good morning, Mr. Chairman and Members of the Subcommittee. I am Philip E. Gerwert, Manager, Water Pollution Control, General Motors Environmental Activities Staff.

We welcome this opportunity to review with you the effect of categorical pretreatment standards on our one hundred forty plus plants -- over 100 of which are classified as integrated facilities.

Before doing that, however, let me state that General Motors recognizes the great improvement in the quality of the nation's waterways which has resulted from implementation of the Clean Water Act, particularly since 1977. We also acknowledge at the outset that the categorical pretreatment standards, while not the ideal solution from General Motors viewpoint, appear likely to achieve the objectives for which they were designed, at least in a large number of plants where only one type of wastewater is discharged. Thus, the Act has been and can continue to be successful in at least these two major aspects.

Our testimony today will address two additional points, where it appears the consequences of the Act are unintended. First, it has been generally acknowledged that compliance with Best Available Technology (BAT) cannot be achieved by the dates currently specified in the Clean Water Act. This situation is addressed by the provisions of Senator Randolph's bill, S. 432, which we fully endorse. The second point centers on the lack of equitable, practical pretreatment standards for

19-871 O—83——51

integrated facilities. This issue, while not addressed in S. 432, was included in Senator Randolph's floor remarks on February 3, 1983, when he introduced the bill (Congressional Record, page S. 1011, attached).

General Motors supports S. 432, because it would provide necessary relief from the harsh consequences of the 1984 BAT deadline in a reasonable way. In addition, we commend Senator Randolph for recognizing in his introductory message to S. 432 the compliance problem faced by integrated facilities. The solution he suggests would correct the problem faced by one major segment of the industrial community -- that which utilizes integrated treatment facilities to accomplish the necessary control in a more economical way. The approach suggested by Senator Randolph can be made without any far-reaching substantive changes in the Act, and without sacrificing water quality.

BACKGROUND

By way of background for the specific problem I will address, Section 307(b) of the Clean Water Act directs the Environmental Protection Agency (EPA) to promulgate categorical pretreatment standards in order to regulate the discharge of pollutants from industries into publicly-owned treatment works (POTWs). Specifically, these standards must (a) prevent pollutants from interfering with the operation of such POTWs, (b) ensure that such pollutants do not pass-through the POTW, (c) prevent sludge contamination, and (d) assure continued compliance by the POTW's with their discharge permits.*

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*Under the National Pollutant Discharge Elimination System

The Act currently incorporates the commitments embodied in the 1976 Consent Decree entered into by the Agency and the Natural Resources Defense Council. These commitments include provisions for the Agency to establish several industrial (source) categories for regulation of wastewater discharges.

Final regulations for 14 of the 34 primary industry categories thus far listed by EPA have been issued. Fourteen more have been proposed and are pending promulgation. Based upon EPA's "Regulatory Agenda" (October 28, 1982, 47 Federal Register 48734-42), regulations for the six remaining categories are scheduled to be proposed during 1983, with promulgation expected approximately nine to twelve months later.

SEPARATE SOURCE VS INTEGRATED PRETREATMENT

Under this regulatory program for the control of pollutants into POTWs, industries must comply with the specific categorical pretreatment standard which reflects actual operations performed at a given facility. For example, a facility performing electroplating operations exclusively is regulated by the electroplating pretreatment standards, while one which manufactures only inorganic chemicals is regulated under the inorganic chemicals pretreatment standards. Each of these types of facilities is required to install separate pretreatment equipment on its wastestream.

Obviously, this approach does not address the problems encountered by large, diverse complexes typical of many in American industry, where multiple sources and various kinds of manufacturing operations on the premises of a single facility cause the discharge of several different types of wastewater. Such installations are subject to as many different standards as there are individual categorical wastestreams within the confines of the plant. An overview of the widespread effect of such multiple categories on GM facilities, for example, are presented in Attachment A.

GM EXPERIENCE

General Motors manufacturing operations are representative of these large, diverse complexes. Of the 140 plus General Motors facilities which discharge process wastewaters into POTWs, 94 will be required to comply with the electroplating pretreatment standards by June 30, 1984, as well as subsequent pretreatment standards yet to be promulgated. From experience, we already know that each unit of control equipment required by such future separate categorical standards will in significant measure duplicate equipment on other different wastestreams. For efficiency purposes, it is clear that one unit of control equipment should be installed on the combined wastestream prior to discharge to the POTWs.

Contrary to what one would expect, there is an additional difficulty we face, namely, that compliance cannot be determined by direct comparison of the pollutant concentration levels in the discharge with the

pollutant limitations established by the various regulations. And here I must get fairly technical to define the crux of our problem.

The comparison just mentioned cannot be made because the actual regulated value for the same specific pollutant varies among the different categorical pretreatment standards. For example, the daily maximum limitation for nickel is 4.1 milligrams per liter for the Electroplating category, whereas it is 3.51 milligrams per liter in the proposed Metal Finishing pretreatment regulations.

In an effort to accommodate these variables at integrated facilities, EPA provided a mechanism for determining compliance with the various categorical pretreatment standards mathematically through the use of a "combined wastestream formula." This formula calculates the flow-weighted average of each pollutant limitation common to several of the categories affecting any given facility.

While the "combined wastestream formula" may be appropriate for some integrated facilities -- that is, those for which all categorical standards have been issued -- it does not resolve the problems faced by all integrated facilities for the following reasons:

1. The first problem is the inability to determine the ultimate pollutant limitations using the combined wastestream formula until the limits have been established for each category at a manufacturer's facility. Thus, only after promulgation of

the last applicable standard can we assess with any degree of certainty the technological feasibility of meeting the combined pollutant limitations because the "combined wastestream formula" relies on published standards for each category. In short, we face a moving target.

2. The second reason is the result of the first. Since the compliance numbers for each new category affect the combined numbers derived from the formula, the likelihood exists of having to alter over and over the design of the combined industrial wastewater control equipment. In some cases, portions of a facility that have been completed in order to comply with the discharge requirements calculated from the combined wastestream formula will be obsoleted or require significant change due to a subsequently issued categorical standard. As a result, a substantial amount of monies for such facilities could be misspent.

A visual presentation of the cost-inefficiency of the sequential, category-by-category compliance approach, compared with the single control approach applied to the total combined wastestream as a distinct category, can be seen in Attachment B.

SOLUTION TO INTEGRATED FACILITIES PROBLEM

In order for our facilities to comply with the current requirements of the categorical pretreatment standards, General Motors has estimated it will require capital expenditures of about $350 million. We also have estimated that about $200 million of this investment could be avoided if the law provides for the designation of "integrated facilities" as a distinct source category. As previously mentioned, such a remedy for the problem of integrated facilities was noted by Senator Randolph in his remarks accompanying the introduction of S.432. Compliance for this new category would also be required no later than three years following promulgation of the final categorical pretreatment standard affecting a given integrated facility. We heartily agree with this approach.

However, in order to avoid compliance dates which extend too far into the future, it would be appropriate to limit the affected source categories to the primary industries previously referenced.

These remedial actions can be implemented by appropriate amendments to Sections 306 and 307 of the Clean Water Act. Consistent with the above, the compliance date for a facility classified as "integrated" could be extended only to the latest compliance deadline specified in the combination of those primary categories which affect that given facility. Moreover, by designating "integrated facilities" as a separate source category, the technological attainability of the final standards can be assessed properly, and cost-effective, environmentally-sound controls installed.

CONCLUSION

In summary, General Motors remains committed to controlling the discharges of pollutants to our nation's waters consistent with the goals of the Clean Water Act. In 1947 we completed installation of our first integrated facility at a GM plant. Because of this commitment, all of GM's plants in this country have water pollution control now in place. From 1969 to 1982, to cite a period for which GM has recorded its expenditures, we have spent approximately $879 million for water pollution control.

Future controls, GM believes, must be instituted in the most technologically-feasible and cost-effective manner if this country and its industrial community are not to squander their limited economic and engineering resources. With regard to pretreatment, this can be accomplished with the modifications to the Clean Water Act suggested by Senator Randolph and endorsed here today by General Motors. Again, this can be done without impairing the quality of the receiving water. We urge that the Committee act on our recommendation to clarify the intent of Congress with respect to establishing separate categorical source and non-conflicting effective dates for integrated sources.

MULTIPLE CATEGORY IMPACT OF PRETREATMENT STANDARDS ON GM INTEGRATED FACILITIES

GM Integrated Facilities	Electro-plating (1/81)*	Porcelain Enameling (11/82)*	Rubber Processing (12/82)**	Electrical/ Electronic Components (3/83)*	Battery Mfg. (6/83)**	Metal Casting Foundries (6/83)**	Metal Finishing (6/83)**	Aluminum Forming (7/83)**	Copper Forming (7/83)**	Plastics Molding & Forming (6/84)**
62	X						X			
3	X			X			X			
6	X					X	X			
1	X						X	X		
10	X						X			X
4	X						X	X		X
1	X					X	X			X
2	X		X				X			X
1	X					X	X		X	X
2	X		X				X		X	X
1	X			X		X	X			X
1	X	X		X		X	X			X
1			X				X		X	X
1					X	X				
4					X	X				X
9							X			X

* - Final Rule

** - Scheduled promulgation date

ATTACHMENT A

Attachment B

hance within 3 years of adoption of such standards.

Arguments have been made for, and last year's administration bill reflected, the concept of national categorical standards for only the major sources of toxic pollutants, with a provision that exemptions would be obtained on certification by a publicly owned treatment works that it has a program adequate to maintain designated uses for receiving waters.

This legislation does not modify the requirement for establishment of national categorical pretreatment standards. It permits local treatment works to establish and implement alternative local pretreatment systems under certain stringent conditions. Such systems would be closely monitored and controlled, and would not be detrimental to current existing designated uses for receiving waters. This approach will serve as a starting point for this year's consideration of the pretreatment issue. I expect further amendments to it to be offered.

Mr. President, I believe this bill to be an important further step in the deliberations of last year. I look forward to working with the Environmental Pollution Subcommittee, chaired by our able colleague, Senator CHAFEE, and the Committee on Environment and Public Works, under the constructive leadership of Chairman STAFFORD, in completing vital action on amendments to the Clean Water Act.●

By Mr. RANDOLPH:

S. 432. A bill to amend the Clean Water Act to extend the 1984 compliance date for certain recently established requirements; to the Committee on Environment and Public Works.

CLEAN WATER COMPLIANCE DATE EXTENSION ACT OF 1983

● Mr. RANDOLPH. Mr. President, today I am introducing the Clean Water Compliance Date Extension Act of 1983. It is my intention that this legislation be considered by the Committee on Environment and Public Works at the same time as the Clean Water Act Amendments of 1983, a measure also introduced today by my colleague, Senator JOHN CHAFEE.

The measure I introduce is similar to an amendment which I considered offering to the Clean Water Act last year, when the committee was examining possible amendments to that act. I did not offer it at that time because it was apparent that such an amendment, regardless of its merit, would attract a number of other amendments, perhaps not so meritorious.

The Clean Water Act currently mandates that industry achieve effluent limitations based on the best available technology (BAT) for all toxic pollutants no later than July 1, 1984. BAT for nonconventional pollutants must be achieved by 3 years after promulgation but no later than July 1, 1987, and BCT, or the best conventional technology for conventional pollutants, such as biological oxygen-demanding materials, by July 1, 1984. These targets were set in the expectation that the Environmental Protection Agency would promulgate guidelines in a timely fashion for the 26 industrial categories initially to be regulated by the 1977 amendments to the act. The Agency has been unable to conform with this expectation, and is now under court order to promulgate all guidelines by late in 1983.

For most of the 26 industries required to comply with these standards, it will be impossible to meet the July 1984, date for compliance which is mandated by law. Guidelines for most of these industries have not yet been promulgated. Testimony at last year's hearings of the Environmental Pollution Subcommittee demonstrated that 3 years after promulgation would probably be necessary to write permits and design and construct facilities. Such an extension, important to many industries, will be essential to the steel industry, for which guidelines were not promulgated until May 1982. In fact, these guidelines are under litigation and may be revised further. I am not being parochial, Mr. President, when I say that the steel industry, so important to my own State of West Virginia, is equally important to the welfare of the Nation as a whole.

The bill I introduce today would extend these deadlines. Three categories of treatment are addressed in this measure: BAT and BCT deadlines for toxic, nonconventional and conventional pollutants; recently issued BPT (best practicable technology), a minimum requirement for all pollutants—confined to guidelines issued after January 1, 1982, such as those for parts of the steel industry; and permits based on best engineering judgment for pollutants for which guidelines have not been established but which have been granted in lieu or effluent guidelines for BAT, BCT, and BPT since January 1, 1982. These deadlines may be extended to not later than 42 months after the date of enactment of this legislation, or not later than 36 months after the date of promulgation or issuance of the appropriate effluent guidelines or permit, whichever is later.

This extension will give industry a minimum of 3 years after Environmental Protection Agency promulgation of guidelines to comply with requirements, with all industries with previously issued guidelines achieving compliance by 3½ years after the bill is signed into law.

I look forward to working with Environmental Pollution Subcommittee Chairman JOHN CHAFEE and full committee Chairman BOB STAFFORD in the development of this amendment to the Clean Water Act.

Mr. President, the failure of the Environmental Protection Agency to promulgate industrial standards has also had a severe impact on the ability of industry to comply with the pretreatment requirements of the Clean Water Act. Although a provision of the amendment I considered offering last year dealt with this, I have not addressed this issue in the context of the bill which I introduce today. When the Committee on Environment and Public Works considers amendments to the Clean Water Act, however, it may be appropriate to add language which will deal specifically with the problems being encountered by industries in which diverse manufacturing operations require the application of more than one categorical pretreatment standard.

One example of such an industry would be an automotive manufacturing plant, in which waste water from each individual operation is ultimately combined to achieve cost-effective compliance with water quality standards. Such an industry is faced with severe practical problems in complying with the Environmental Protection Agency's categorical pretreatment standards, particularly when they are issued at widely different times. The discharge limits imposed by the combined waste-stream formula will change as subsequent pretreatment standards are promulgated. This means that this industry, as well as others having integrated operations, will be uncertain about the form of future compliance obligations. It will make it impracticable, if not impossible, for such industries to build new treatment plants until all applicable standards are promulgated.

It may be appropriate to incorporate into section 307(b)(3) of the Clean Water Act as designation of an integrated facilities category, to be defined as a facility in which more than one waste stream is subject to categorical standards, issued at different times, entering a publicly owned treatment work. Under the law, compliance with pretreatment standards would be mandatory within 3 years after promulgation of the last categorical standard affecting such a facility.

As I said, Mr. President, I have not included this concept in the legislation which I introduce today. But I believe the committee should give attention to this problem when it considers other amendments to the pretreatment provisions of the Clean Water Act. It is my understanding that Chairman STAFFORD and Subcommittee Chairman CHAFEE are committed to reporting out this legislation by mid-March, and I will support their efforts to do so.●

By Mr. GARN (for himself, Mr. PROXMIRE, Mr. NUNN, Mr. COHEN, Mr. TOWER, Mr. MOYNIHAN, Mr. LAXALT, Mr. THURMOND, Mr. ARMSTRONG, Mr. TRIBLE, Mr. MATTINGLY, Mr. HATCH, Mr. HELMS, Mr. PRESSLER, Mr. ABDNOR, Mr. SYMMS, Mr. EAST, and Mr. WALLOP):

Environmental Activities Staff
General Motors Corporation
General Motors Technical Center
Warren, Michigan 48090

May 24, 1983

The Honorable John H. Chafee
Chairman, Subcommittee on Environmental Pollution
United States Senate
Washington, D.C. 20510

Dear Senator Chafee:

General Motors is pleased to submit responses to questions addressed to the panelist at the April 14, 1983 hearing, as well as those subsequently received, on reauthorization of the Clean Water Act.

In response to the request first from Senator Randolph, repeated by Senator Mitchell, relating to Table 2 of Mr. J. T. Banks' statement, General Motors can neither dispute nor support the figures contained in this table. Mr. Banks testified they were EPA figures yet, when we made inquiry of the Agency as to the origin and bases of the quantitative estimates, we were unable to obtain information necessary to make the evaluation.

However, it should be noted from a subsequent exchange between Senator Randolph and Mr. Banks that figures designated as monthly in the table were actually annual figures. That being the case, under the heading "Toxics Discharge after BAT," the "Total Lbs" figures of 20 million and 64 million, referenced by Senator Randolph, may be inflated by a factor of 12.

However, we view the information as being presented in a manner that might be misinterpreted. Mr. Banks' data reflect the mass of toxic pollutants discharged after BAT has been attained. Unfortunately, the mass data should have minimal or no relationship to the reasons for extending the BAT compliance date beyond three years from the promulgation date of an applicable regulation. A more appropriate concern would be the excess or increment of pollutant discharged on a monthly basis attributable to the difference between best practicable control technology (BPT) and BAT pollutant removal levels. In our view, this would be more indicative of the effect and impact of compliance date extensions on a monthly basis beyond three years from date of promulgation of the regulation.

The following table compares incremental toxic pollutant removal levels of BPT and BAT. These values have been drawn, in part, from the proposed regulations for eight industrial categories that apply to GM facilities.

Column 1 shows those eight categories and the page citation from the Federal Register.

Column 2 contains EPA estimates of annual toxic pollutant removal levels by use of BAT, as contained in the proposed regulations.

Column 3 contains monthly figures which were derived by dividing EPA's annual figures by 12.

Column 4 contains amounts drawn from Table 2 of Mr. Banks' statement, but (a) changed first to reflect annual values per Banks' testimony, and (b) adjusted by dividing the numbers by 12 so they would represent monthly amounts for comparative purposes with EPA figures in column 3.

1 Category	2 BAT Incremental (EPA Proposal) Annual Pounds Removed	3 BAT Incremental (EPA Proposal) Monthly Pounds Rem.	4 BAT Mass (Banks' Table 2) Monthly Pounds Rem.
Porcelain Enameling (pg 53176)	1,430	120	1,806
Coil Coating (pg 6275)	480	40	1,822
Electrical (pg 15385-87)	660,000*	55,000*	556
Battery (pgs 51057-59)	2,104	175	1,389
Metal Finishing (pg 38468)	0	0	38,889
Aluminum Forming (pg 52634)	35,000	2,920	19,446
Copper Forming (pg 51284)	8,800	735	3,958
Foundries (pgs 51521-22)	1,584	135	14,514

Again, from this information, it seems clear that Mr. Banks' data is inflated by at lease a factor of 12.

* Incremental removal for fluoride only which is classified as a non-conventional pollutant.

Responding to Senator Mitchell's request relative to GM's water pollution control expenditures of $879 million for the 1969-1981 period, the attached table shows "gross and net revenues" as "gross sales" and "net income," respectively, as well as total capital expenditures for that period. For additional comparative purposes we have included total expenditures for environmental controls, i.e., air, water and solid wastes. This makes it possible to get a much more complete understanding of GM's commitment to improving the environment. For instance, at one end of the spectrum, in 1980, it can be seen that we spent $1.2 billion for pollution control although we lost $69 million during the same period. In 1981, we spent almost twice ($1.1 billion) what we made ($693 million) and in 1974, the amounts were about on a par. At the other end of the spectrum are years wherein we made enough profit to permit the kinds of expenditures illustrated in this table.

In response to your question regarding extensions for best engineering judgment (BEJ) permits, we agree that a currently effective permit containing negotiated compliance schedules should not be reopened to permit extended periods of nonconformance. However, Mr. Blower points out that negotiation in 1985 of a BEJ permit, absent promulgated effluent guidelines, could be constrained by a statutory deadline of 1987 for BAT compliance. This would result from the presumption commonly held that a BEJ permit is the temporary equivalent of a BAT permit.

In answer to Senator Stafford's request (received May 11, 1983) that we briefly describe our administrative and judicial proceedings on the combined wastestream formula, we are currently involved in one of each.

First, General Motors has pending a petition for review in the United States Court of Appeals for the Third Circuit challenging the combined wastestream formula and the application of the electroplating pretreatment standards through the use of the formula to integrated facilities. Our complaint, with respect to these regulations, is based on the way in which the combined wastestream formula would apply a series of individual process-based standards to a single combined wastestream. By this we mean EPA has made it mandatory that our integrated facilities meet a changing requirement, i.e., each time a new standard for another process at a given facility is promulgated at a later date, the standards already applicable will change as a result of the formula. Unfortunately, not all relevant standards to be used in the formula have been promulgated yet. Moreover, GM faces potentially expensive redundancy and waste in developing an appropriate, cost effective control strategy since, in the preparation of these standards, not one has been developed with reference to the technological feasibility and cost of compliance, given the characteristics of the combined wastestream.

This problem of constantly moving, unreviewed compliance targets became critical with promulgation of the electroplating regulations. Those regulations had been developed with exclusive reference to segregated electroplating wastestreams. EPA has made no attempt to determine whether the conclusion that those standards were reasonably achievable would be affected by the different mix and concentration of pollutants that results when electroplating wastes are combined with wastes from other processes.

In view of the fact that EPA has made clear its intent that the combined wastestream formula will apply all process-based standards to integrated facilities, General Motors is faced with a series of these shifting, unreviewed standards over the foreseeable future.

Second, General Motors has filed an administrative petition for stay and rulemaking with EPA. The basis for this petition was identical to that underlying the judicial petition for review but, in the administrative petition, we asked the Agency to take steps to revise its regulations to eliminate the consequences referred to previously and to delay implementation of the combined wastestream formula until such regulatory changes could be accomplished.

Senator Stafford's next question was how the foregoing proceedings would be affected by an amendment to the Clean Water Act such as GM has proposed.

Obviously, the effect of any statutory amendment on currently pending proceedings depends upon the timing and substance of that amendment. That caveat aside, however, the effect of the amendment proposed by General Motors would be to exempt integrated facilities from an obligation to comply with the 34 individual primary categorical standards until a final, integrated facility standard can be computed. This would eliminate the moving target problem and would, therefore, resolve General Motors' principal concern.

GM's proposal that a separate pretreatment standard be created for integrated facilities specifies the concept on which the real world solution should be based. The implementation of such a concept would probably apply to each of our integrated facilities a single set of pollutant discharge limits computed through the combined wastestream formula. These limits, however, would likely be nothing more than a flow-weighted average of the standards applicable to the various individual processes utilized at that plant. While it may be expected, it is far from a certainty that this average will be achievable at a reasonable cost. Therefore, a regulatory mechanism should be established, as it is with respect to other standards under the Act, through which regulated parties could obtain administrative and, ultimately, judicial review of the integrated facility standard where it appears that the average of the individual standards does not satisfy the statutory requirements.

If General Motors' legislative proposal could be adopted with the suggested administrative flexibility to adjust the new standard to assure the technological feasibility and compliance which appear to be the intent of other provisions of the Act, then our administrative and judicial proceedings on this subject could be resolved.

I hope these answers have been responsive to the Committee's requests. If the Committee wishes to ask any further questions on this matter, I will try to respond.

Sincerely,

Philip E. Gerwert

Philip E. Gerwert, Manager
Water Pollution Control
Environmental Activities Staff

Attachment

General Motors Financial Data - U.S. Only

($ in millions)

Year	Gross Revenue (Sales)	Capital Expenditures	Net Revenue (Net Income)*	Total Pollution Control** Expenditures	Water Pollution Control Expenditures
1981	45,143	6,351	693	1,150	126
1980	40,410	5,310	(69)	1,224	131
1979	48,407	4,028	2,285	1,014	114
1978	47,416	3,806	3,052	762	95
1977	43,419	3,032	2,971	481	72
1976	36,801	1,826	2,380	359	56
1975	26,437	1,822	1,065	334	54
1974	23,347	1,970	722	635	56
1973	28,280	1,699	2,278	485	55
1972	24,044	1,490	1,903	384	45
1971	22,893	1,291	1,781	302	38
1970	14,439	1,869	353	185	22
1969	19,922	1,660	1,540	99	15

*These data are based on GM Annual Reports of world wide sales, etc., adjusted to a U.S. basis.

**Amounts spent for air (both stationary and mobile source), water and solid waste control. For mobile source, they include R&D engineering, reliability, facilities and tools. For stationary sources they include R&D, facilities and operating costs.

ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES
SUITE 200, 1015 15th ST., N.W., WASHINGTON, D. C. 20036 (202) 833-[illegible]

MEMBER AGENCIES

Anchorage Water & Sewer Utilities, AK
Jefferson County Sewerage District, AL
City of Little Rock, AR
City of Phoenix, AZ
City of Tucson, AZ
Pima County Wastewater Management, AZ
Chino Basin Municipal Water District, CA
Orange County Sanitation Districts, CA
East Bay Municipal Utility District, CA
City of Los Angeles, CA
Los Angeles County Sanitation District, CA
Sacramento Regional County Sanitation District, CA
City of San Diego, CA
City of San Francisco, CA
City of San Jose, CA
Ventura Regional County Sanitation District, CA
Central Contra Costa Sanitary District, CA
City of Colorado Springs, CO
Metropolitan Denver Sewage Disposal District No. 1, CO
The Metropolitan District (Hartford County), CT
Miami-Dade Water and Sewer Authority, FL
Orange County Sewer and Water Department, FL
City of Tampa, FL
City of Atlanta, GA
City of Honolulu, HI
City of Boise, ID
MSD of Greater Chicago, IL
Sanitary District of Rockford, IL
City of Fort Wayne, IN
City of Wichita, KS
Louisville and Jefferson County MSD, KY
New Orleans Sewerage and Water Board, LA
Anne Arundel County, MD
City of Baltimore, MD
Washington Suburban Sanitary Commission, MD
Boston Metropolitan District Commission, MA
South Essex Sewerage District, MA
Upper Blackstone Water Pollution Abatement District, MA
Wayne County Public Works, MI
City of Kalamazoo, MI
Detroit Water and Sewerage Department, MI
Western Lake Superior Sanitary District, Duluth, MN
Metropolitan Waste Control Commission, St. Paul, MN
City of Kansas City, MO
Metropolitan St. Louis Sewer District, MO
City of Omaha, NE
Bergen County Utilities Authority, NJ
Middlesex County Utilities Authority, NJ
Passaic Valley Sewerage Commissioners, NJ
Ocean County Utilities Authority, NJ
City of Albuquerque, NM
Albany County Sewer District, NY
Buffalo Sewer Authority, NY
City of New York, NY
County of Nassau, NY
Nassau County Department of Public Works, NY
Onondaga County, NY
City of Greensboro, NC
City of Akron, OH
Greater Cincinnati MSD, OH
Cleveland Regional Sewer District, OH
City of Columbus, OH
City of Dayton, OH
City of Toledo, OH
City of Portland, OR
United Sewerage Agency of Washington, OR
Allegheny County Sanitary Authority, PA
City of Philadelphia, PA
City of Chattanooga, TN
City of Knoxville, TN
City of Memphis, TN
City of Nashville, TN
City of Dallas, TX
El Paso Water Utilities, TX
City of Fort Worth, TX
City of Houston, TX
City of San Antonio, TX
Gulf Coast Waste Disposal Authority, TX
Trinity River Authority, TX
Salt Lake City Public Utilities, UT
Hampton Roads Sanitation District, VA
Municipality of Metropolitan Seattle, WA
City of Tacoma, WA
City of Charleston, WV
Green Bay MSD, WI
Milwaukee County MSD, WI

STATEMENT BY

CHARLES KAISER, JR.

ASSISTANT EXECUTIVE DIRECTOR

AND GENERAL COUNSEL

METROPOLITAN ST. LOUIS SEWER DISTRICT

ON BEHALF OF THE

ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES

BEFORE

ENVIRONMENTAL SUBCOMMITTEE

ENVIRONMENT AND PUBLIC WORKS COMMITTEE

U.S. SENATE

WASHINGTON, D.C.

APRIL 14, 1983

19-871 O—83——52

Mr. Chairman, my name is Charles B. Kaiser, Jr. I am the Assistant Executive Director and General Counsel of the Metropolitan St. Louis Sewer District and I am here today in my capacity as Chairman of the Association of Metropolitan Sewerage Agencies' Legislative Committee. Accompanying me is Ron Linton, the Executive Director of AMSA, and Lee White, AMSA's Counsel.

I appreciate this opportunity to present the views of AMSA on S. 431, the Clean Water Act Amendments of 1983, particularly as they relate to the subject of pretreatment. This issue is of extreme importance to AMSA, whose members serve more than seventy million people and thousands of industries in 93 of the nation's major urban areas and also treat more than fifty percent of the wastewater subject to existing federal pretreatment mandates across the country.

Mr. Chairman, AMSA member agencies appreciate the critical need to control the discharge of industrial toxic waste to their systems and, accordingly, are the foremost advocates of requiring "good" pretreatment programs at the local level. Many of our members had effective industrial waste control programs prior to 1972, when the concept of Federal pretreatment requirements was first imposed. Most of our members now have programs that comply or will soon comply with Federal pretreatment requirements. In many cases, where needed for plant, sludge, or environmental protection, these agencies require industry to meet even more restrictive discharge limitations than those that have either been promulgated or are under consideration by the Environmental Protection Agency.

AMSA has been highly critical of the trend in national pretreatment program development because of the assumption that a single nationwide strategy based on categorical standards is uniformly appropriate throughout the nation. In contrast, we believe that the basic objectives of pretreatment -- to protect water and sludge quality, to protect plant operations and to prevent passthrough -- relate to site-specific problems and require site-specific solutions.

Accordingly, we continue to recommend an approach that would enable local agencies with effective local programs and standards to continue to implement these programs without major procedural and administrative revisions needed to institute national categorical standards. And, we do believe that those agencies unwilling to develop their own programs should be required to meet Federal program requirements. In a nutshell, we are not trying to avoid our responsibilities with regard to human health and the environment; rather, we have a sincere interest in ensuring the development and implementation of more cost-effective and environmentally sound pretreatment programs premised on local conditions and requirements.

Mr. Chairman, AMSA welcomes the pretreatment initiatives your Committee has offered and commends the Committee for its attention to this highly complex and important issue. We believe that these initiatives essentially mirror the type of program that we have advocated for some time. We would also hope that we will be able to work with you in a constructive manner to resolve any remaining differences between our respective approaches so that we will be able to move forward as quickly as possible.

AMSA has been at the forefront of the pretreatment debate for many years and, during this time, we have worked with EPA, the states and others to fashion a sensible alternative approach to the existing Federal strategy. We have been the foremost advocates of good pretreatment because our members are ultimately responsible for regulating toxic wastes discharged into their systems and, more important, are ultimately accountable to EPA, the states and their own citizens if their failure to regulate these discharges results in environmental damage. For this simple reason, AMSA has never offered and does not now offer an approach that would have the effect of lessening general pretreatment requirements in local communities throughout the country.

With the introduction of S. 431, we believe that we are extremely close to accomplishing our mutual objectives. Obviously, we have some concerns. One concern that is very important to us is the requirement that a local agency be in compliance with secondary treatment requirements to be eligible to develop and implement an alternative local pretreatment system. In our view, the issues of secondary treatment and pretreatment are unrelated, with the result that this condition will only serve to complicate the objective consideration of either issue on its own merits.

Both toxics and plant overload of conventional pollutant levels can be controlled by well-designed and administered pretreatment programs. While secondary treatment plants have been shown to remove considerably more of the influent heavy metals and no doubt more toxic organics -- although there is less data available with regard to these pollutants -- this fact alone does not necessarily imply that primary treatment plants cannot also meet their applicable NPDES permit requirements for these toxic pollutants. It does indicate that, all other factors being equal, a primary treatment plant may have to establish more stringent pretreatment standards for these parameters than a secondary treatment plant in order to achieve adequate effluent quality. In fact, owing to differences in local conditions, this is essentially what may have to be done on a case-by-case basis even if comparable treatment plants provide secondary treatment.

We are not suggesting that pretreatment can or should be a substitute for the level of treatment established to satisfy the needs of communities. In our view, treatment plants should be designed to meet these needs. Specific design standards are used to comply with all appropriate state and federal discharge laws. We believe that pretreatment ordinances should be developed to protect the treatment plant as well as receiving waters and sludge quality. This should be done on a POTW-by-POTW basis. In establishing local ordinances, POTWs should be required to develop pretreatment programs which comply with these needs.

This approach, Mr. Chairman, would allow for the continued compliance with NPDES permits and provide for local determination of pretreatment requirements based on individual plant design and local community needs.

For these reasons, we recommend against secondary treatment as a determining factor in whether a local agency is eligible to establish an alternative local pretreatment system pursuant to the provisions of S. 431. We believe that an approved pretreatment program should be sufficient to enable a local agency to take advantage of this alternative approach to categorical standards. In our view, agencies with approved pretreatment programs would still be required to establish and enforce local standards for industrial dischargers; to comply with whatever effluent limitations were set forth in their NPDES permits; to consider the prospects of enforcement action for failure to enforce or meet local, state or Federal requirements; to ensure water quality goals were being achieved; and to report to EPA at least annually as to the compliance with these as well as other requirements of the proposed legislation.

With the exception of the secondary treatment issue, we believe that S. 431 satisfies the needs and concerns of AMSA member agencies. We would, however, request clarification in Committee report language with regard to:

- o the mechanics of the preapplication and application process as well as the timeframes for achieving targets as a POTW goes through the NPDES permit modifcation process
- o the scope and effect of "guidelines" that EPA would issue under Section 304(g)(3)(B)
- o the intent of Section 304(g)(3)(C) in terms of when a POTW would be required to substitute a local ordinance number for a national categorical pretreatment standard
- o the ability of a POTW to commit "other necessary agencies or persons" referenced in Section 307(e)(2)(A)(iii) to comply with a schedule of actions that the POTW is required to comply with

- o the scope of the "review" envisioned by Section 307(e)(2)(B) of a letter of intent submitted by a POTW
- o the definition or interpretation of the terms "interference", "passthrough", and "incompatability" under Section 304(g)(3)(C)
- o the types of local numerical limits envisioned by Section 307 (e)(3)(A), considering the subjective nature of the existing definitions of interference and passthrough
- o the ability of a POTW to be in compliance with a proposed numerical effluent limitation under Section 307(e)(3)(B) at the time that it submits an application for a modification of its NPDES permit
- o the definition of what constitutes an "adequate" legal, technical and administrative capability and a sampling and monitoring program pursuant to sections 307(e)(3)(C) and (D) of the proposal.

We trust that all of these issues will be interpreted to provide maximum flexibility to the local agencies wanting to develop and implement alternative local pretreatment systems pursuant to the requirements of the new legislation. And if there is any further information that AMSA can provide with regard to any of these issues, we would be most pleased and willing to assist the Committee.

Mr. Chairman, AMSA is currently surveying its members as a means of compiling hard data to demonstrate their pretreatment capabilities. The survey is intended to ascertain the extent to which our member agencies are regulating the introduction of industrial toxic wastes into their systems as well as to determine how many of them have received program approval at this time from EPA or their states. While all the results of this survey have not been completed, I would like to share with you some initial survey results, which provide strong and positive evidence of AMSA member agency commitment to pretreatment.

The large majority of these returns demonstrate the regulation of toxic parameters at the local level despite the lack of equivalent Federal or state controls. In short, our commitment to pretreatment is real, and the major metropolitan agencies throughout the country have not been giving industry a free ride when it comes to pretreatment. Equally important, many of our member agencies have had their pretreatment programs approved by their states or EPA and the vast majority of the others have submitted their programs to state or EPA officials for approval. The Committee should be aware, however, that the inability of EPA or the states to approval local programs expeditiously -- within the timeframes set forth in the proposed legislation -- may be an issue of concern. Also, EPA and the state agencies, for the most part, have not established toxic effluent limits in the NPDES permits for these POTWs. In our view, the program approval process should not be allowed to frustrate the basic intent of the legislation, which is to provide for local flexibility in carrying out national pretreatment requirements. In addition, in some cases, the NPDES permit authorities have failed to insert a requirement for development of a local program into the local agency's NPDES permit. Most of these local agencies, however, have ordinance controls on toxics even without this program requirement.

In conclusion, I would like to commend you and members of this Subcommittee for your concern and interest in reshaping the national pretreatment program to acknowledge the capabilities of local officials in establishing and implementing necessary pretreatment controls at the local level. We believe that S. 431 acknowledges these capabilities and provides the necessary flexibility to address local problems in a manageable, cost-effective, and environmentally responsive manner. We do believe, however, that all POTWs with "good" pretreatment programs, regardless of whether they currently operate primary, secondary or more advanced treatment facilities, should be authorized to move forward with locally sensitive and environmentally and economically responsive controls. We encourage

the Committee to act quickly and positively on this legislation, because much time has already been lost and municipal agencies need to know now whether they will be able to move forward with locally designed solutions to local problems or whether they will have to impose insensitive national requirements within their jurisdictions.

Mr. Chairman, this concludes my prepared statement. If you have any questions, I would be most pleased to answer them at this time.

ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES
[illegible] WASHINGTON, D. C. 20036 (202) 659-9161

Anchorage Water & Sewer Utilities, AK
Jefferson County Sewerage District, AL
City of Utility Board, AR
City of Phoenix, AZ
City of Tucson, AZ
Pima County Wastewater Management, AZ
Chino Basin Municipal Water District, CA
Orange County Sanitation Districts, CA
East Bay Municipal Utility District, CA
City of Los Angeles, CA
Los Angeles County Sanitation District, CA
Sacramento Regional County Sanitation District, CA
City of San Diego, CA
City of San Francisco, CA
City of San Jose, CA
Ventura Regional County Sanitation District, CA
Central Contra Costa Sanitary District, CA
City of Colorado Springs, CO
Metropolitan Denver Sewage Disposal District No. 1, CO
The Metropolitan District (Hartford County), CT
Miami-Dade Water and Sewer Authority, FL
Orange County Sewer and Water Department, FL
City of Tampa, FL
City of Atlanta, GA
City of Honolulu, HI
City of Boise, ID
MSD of Greater Chicago, IL
Sanitary District of Rockford, IL
City of Fort Wayne, IN
City of Whiting, IN
Louisville and Jefferson County MSD, KY
New Orleans Sewerage and Water Board, LA
Anne Arundel County, MD
City of Baltimore, MD
Washington Suburban Sanitary Commission, MD
Boston Metropolitan District Commission, MA
South Essex Sewerage District, MA
Upper Blackstone Water Pollution Abatement District, MA
Wayne County Road Works, MI
City of Kalamazoo, MI
Detroit Water and Sewerage Department, MI
Western Lake Superior Sanitary District, MN
Metropolitan Waste Control Commission, St. Paul, MN
City of Kansas City, MO
Metropolitan St. Louis Sewer District, MO
City of Omaha, NE
Bergen County Utilities Authority, NJ
Middlesex County Utilities Authority, NJ
Passaic Valley Sewerage Commissioners, NJ
Ocean County Utilities Authority, NJ
City of Albuquerque, NM
Albany County Sewer District, NY
Buffalo Sewer Authority, NY
City of New York, NY
County of Monroe, NY
Nassau County Department of Public Works, NY
Onondaga County, NY
City of Greensboro, NC
City of Akron, OH
Greater Cincinnati MSD, OH
Cleveland Regional Sewer District, OH
City of Columbus, OH
City of Dayton, OH
City of Toledo, OH
City of Portland, OR
United Sewerage Agency of Washington County, OR
Allegheny County Sanitary Authority, PA
City of Philadelphia, PA
City of Chattanooga, TN
City of Knoxville, TN
City of Memphis, TN
City of Nashville, TN
City of Austin, TX
El Paso Water Utilities, TX
City of Fort Worth, TX
City of Houston, TX
Gulf Coast Waste Disposal Authority, TX
Trinity River Authority, TX
Salt Lake City Public Utilities, UT
Hampton Roads Sanitation District, VA
Municipality of Metropolitan Seattle, WA
City of Tacoma, WA
City of Charleston, WV
Green Bay MSD, WI
Milwaukee County MSD, WI

May 18, 1983

The Honorable John H. Chafee
United States Senate
523 Senate Dirksen Office Building
Washington, D.C. 20510

Dear John:

Attached is our additional responses that you requested when we testified on April 14. We continue to support your legislation and encourage you to report S. 431, including the pretreatment provision, out of Committee as quickly as possible. I would, however, like to take this opportunity to reiterate a few basic points.

We have examined your proposed language regarding pretreatment very closely and fail to see how it could open the door to POTWs who might view your alternative approach as a way to avoid their responsibilities. To qualify for eligibility, a POTW would initially have to demonstrate compliance with secondary treatment requirements as well as pretreatment program approval by EPA or the States. These are particularly stringent requirements, especially if you consider EPA's regulations on what constitutes an an approval pretreatment program.

We also fail to see how EPA would have the resources to oversee the implementation of categorical standards by 2,000 POTWs across the nation and not have the resources to oversee the implementation of alternative pretreatment controls by perhaps the 60 or 70 communities around the country that would qualify for eligibility under your proposal. Your approach, in our view, would enable EPA to conserve scarce resources and concentrate its efforts on POTWs that need day-to-day Federal supervision to meet their pretreatment responsibilities.

Finally, in cases where local standards are more stringent than those now being considered by EPA, the existence of less stringent categorical standards may, from a political standpoint, result in the downgrading of local efforts and standards. Under your approach, qualified POTWs would be able to justify their programs not only politically, but also economically and legally, without sacrificing environmental objectives.

I hope that this information is helpful to you. If you need any further assistance, please feel free to call me at your convenience.

Sincerely,

Ron M. Linton
Executive Director

Enclosure

ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES

May 18, 1983

The Honorable John H. Chafee
Committee on Environment and
Public Works
Subcommittee on Transportation
523 Senate Dirksen Office Building
U.S. Senate
Washington, D.C. 20515

Dear Senator Chafee:

This is in response to your request for additional information for the record of your April 14, 1983 hearing on the reauthorization of the Clean Water Act, particularly as it refers to the pretreatment program. Specifically, you requested that we provide you with the results of the AMSA pretreatment survey as well as to respond to the testimony presented before your subcommittee by the Natural Resources Defense Council (NRDC) and the Connecticut Association of Metal Finishers (CAMF).

Results of AMSA Pretreatment Survey

Earlier this year, AMSA surveyed its members in an effort to track the progress they have made with regard to the development and implementation of local pretreatment programs in accordance with federal statutory and regulatory requirements. As we stated in our testimony, the survey results indicate that a large majority of AMSA members are regulating the discharge of toxic waste into their systems despite the lack of equivalent federal or state controls. In addition, many of our member agencies have had their pretreatment programs approved by their states or EPA and many others have submitted their programs to State or EPA officials for approval. Specific survey results are as follows:

- The 87 agencies responding to the survey are responsible for more than 334 plants (with a total capacity of 14.954 gallons per day) and acutally treat more than 11.391 billion gallons a day, including more than 1.409 billion gallons of industrial waste.

- There are more than 22,989 industries in these systems that are or will be affected by EPA categorical standards, 17,286 of which are in compliance with local agencies standards.

- 23 local agencies have had their programs approved by their states or EPA, with the remaining 64 on schedules to develop programs (except two agencies for which the state is the control authority where the state is issuing NPDES permits to all indirect discharges).

- o 20 agencies experienced some degree of upset or pass-through at one or more of their plants, but only three of these systems have approved programs.

- o 23 agencies had one or more plants that did not meet secondary standards, either because they had primary plants or because of permit violations, and 8 of these had approved pretreatment programs.

- o 13 agencies reported that all their categorical customers were in compliance with local ordinance limits.

- o 77 agencies reported that they controlled one or more toxic pollutants by specific numbers on local ordinances while only 34 permits for these agencies controlled toxics.

- o all agencies with approved pretreatment programs had ordinance or other controls for toxic waste discharges to their systems in place.

Response to Testimony of Natural Resources Defense Council

The Natural Resources Defense Council (NRDC) raises several concerns about provisions in S. 431 regarding the establishment of alternative local pretreatment programs. Because of these concerns, NRDC urged the committee to leave the existing national framework, with national categorical standards, in place. We believe that NRDC's arguments fail to justify such a response.

NRDC first questions whether the pretreatment provisions in S. 431 are workable from an administrative standpoint. In contrast, we fail to see how this alternative approach would be any less workable than the approach that cities are being required to follow at the present time. From our perspective, the provisions of the general pretreatment regulations, which EPA and the states are currently required to utilize to measure the adequacy of local pretreatment programs, are equivalent to the requirements set forth in your legislation. Accordingly, if EPA and the states can implement a national pretreatment program based on these general pretreatment program requirements, they should be in a position to implement your alternative approach with out a great deal of difficulty. Essentially, a local pretreatment porgram that meets the objectives of the general pretreatment regulations should also meet the requirements of your alternative pretreatment approach.

The Natural Resources Defense Council also questions whether an alternative pretreatment program would provide the same level of protection against toxics as the current national program. As part of this argument, NRDC points to the little value this approach will have in cases where POTWs have standards that are more stringent than the categorical standards; the potentially large number of applicants; and the general inability of local agencies to develop and implement local standards that achieve national pretreatment objectives, including the safe handling of sludge.

To restate our position, AMSA believes that all POTWs that can demonstrate the capability to develop and implement effective local pretreatment controls should be allowed to do so, leaving national categorical standards operable only in those cases where a POTW is either unwilling or unable to meet its responsibilities for the control of industrial waste to their systems. In fact a POTW that has had its program approved by its state or EPA and further demonstrates that it meets the provisions of your proposed legislation has a "good pretreatment program" which deserves to be recognized as such. In our view, POTWs with programs such as these are more likely to enforce their local standards as opposed to national standards, with the result that the objectives of pretreatment would be better served.

NRDC's point that such an alternative approach would have little use in cases where a POTW has more stringent standards simply does not make sense because, in such a situation, industry may very well demand and achieve the less stringent national categorical standards within the local community. This is just a logical extension of NRDC's reasoning at a different point in its testimony where it suggests that your alternative approach would only benefit cities with less stringent standards for the very same reason.

But in the final analysis, the question of whether local standards are less stringent or more stringent than the national categorical standards begs the question. We support standards that are adequate to protect plant operations, guard against passthrough and ensure a sludge quality that meets state and federal requirements. Such standards, depending on the specific pollutant parameter, in some cases may have to be less stringent than the applicable national standard and in other cases may have to be more stringent than the applicable national standard. At least, however, they will bear some relationship to the particular local circumstances in question rather than be based, as categorical standards are based, on the degree of removal that a particular industry can achieve with a specified technology. In a nutshell, categorical standards are not designed to relate to water quality, plant protection, or sludge quality considerations. Local standards do consider these factors.

Finally, NRDC questions the resources that would be needed to implement your alternative pretreatment approach, pointing to a 13.5 million dollar a year budget for FY 1984 and 1985, assuming 600 POTWs applied to run their own equivalent programs. We believe these figures are over-inflated. First, the implementation of such a program is merely an extension of what EPA and the states are required to do at the present time in approving local pretreatment programs for 2,000 municipalities around the country. Second, these figures fail to consider the resources that EPA and the states would save if such an alternative approach is enacted into law. For example, rather than expending large sums of money and utilizing thousands of manhours on the constant and continual review of existing local pretreatment requirements for all cities in the country, EPA and the states would be able to concentrate their limited resources on those problem municipalities, while leaving the larger, more sophisticated and more capable agencies on their own with only a limited annual accounting required. Finally, the NRDC figures fail to take into account the potential savings to municipalities, who are now required to expend substantial sums to comply with all of the annual reporting requirements for each of the categorical standards in effect within

their jurisdictions. Under your alternative approach, these funds would be saved.

Response to Testimony of the Connecticut Association of Metal Finishers

The Connecticut Association of Metal Finishers (CAMF) also urges your committee to abandon its efforts to inject more flexibility into the national pretreatment program. Their recommendation, is founded on numerous political, practical, and technical problems, all of which in our view bear no reality to the real world.

The Connecticut Association of Metal Finishers first questions the ability of municipal governments to enforce pretreatment standards for the same industries that it is trying to attract to its area for the employment and related tax based benefits it could derive. In our view, if a POTW cannot be expected to enforce locally derived pretreatment standards, then for the same reasons it cannot be expected to enforce nationally derived pretreatment standards. However, local governments do enforce their standards in order to protect water quality to meet permit requirements, to ensure sludge quality, and to maintain proper plant operations. In our view, it is easier for a city to justify the enforcement of locally derived standards that have some relationship to the needs of the community than it is to enforce national categorical standards that do not take the local situation into account.

CAMF also questions the ability of municipalities to raise revenue to support new personnel and testing capabilities with pretreatment controls. Again, if local agencies are unable to accomplish this degree of self-sufficiency with regard to their own locally developed pretreatment programs, then they are at an equal disadvantage in achieving the requirements of the existing general pretreatment regulations and having their own local programs approved by EPA or their states. Such POTWs, in our view, would be ineligible for the development of an alternative pretreatment program approach in any case.

The Metal Finishers also question the sanctions that exist to force POTWs to cease the discharge of municipal or industrial waste. In response, we urge them to read the Clean Water Act and related amendments to appreciate the establishment of a permit process along with provisions for fines and penalties for permit violations. Surely EPA and the states are not in a position to shut down a POTW, but sufficient sanctions exist to ensure that they operate effectively and that their pretreatment programs are likewise run in an efficient and environmentally sound manner.

The Connecticut Metal Finishers also raise the spectre of industrial forum shopping as a reason for maintaining national categorical standards. None of our member agencies has ever related a case of an industry moving out of its jurisdiction during the past ten years when categorical standards were not in place. Equally important, under your alternative pretreatment approach, cities would still be required to have an approved pretreatment program with standards adequate to meet pretreatment objectives. And it is highly likely that the local numbers developed for these programs would be in the neighborhood of the numbers being considered for categorical standards by EPA. Finally, this argument fails to take into account the discrepancies from one area of the country to another in terms of power and water rates, labor considerations, and general aesthetics, all of which must be considered by in-

dustry before it makes a decision on where to locate or relocate.

The Connecticut Metal Finishers also raise the technical deficiency that public-owned treatment works are not designed to receive and treat industrial wastewater. While it is true that most POTWs are not designed as physical/chemical treatment plants, they are designed to receive a certain percentage of industrial waste. Indeed, a pretreatment program is necessary to determine what is allowable to ensure that plant operations and water quality are maintained. Even Congress recognized the incidental removal of toxic waste as part of the POTW treatment process, and this has certainly been confirmed by the studies conducted by the Environmental Protection Agency.

The Connecticut Metal Finishers also point out that your pretreatment proposal fails to recognize that, while a POTW may he meeting secondary treatment standards, it may be operated at or above capacity and, as a result, have problems of overflow and by-pass. We would like to point out, however, that the same situation would exist in the case of national categorical pretreatment standards. Additionally, we would like to point out that a good pretreatment program, one that would be eligible for consideration under your proposal, would attempt to take this into account, regardless of whether the end result was the enforcement of local or nationally based pretreatment controls.

Lastly, CAMF rasies the spectre of hazardous municipal sludges that would be difficult and costly to dispose of in already scarce and hazardous waste disposal sites. This, however, ignores the clear requirement in both the general pretreatment regulations as well as your proposed legislation requiring an alternative program that ensures a sludge that meets all applicable state and federal requirements. In addition, national categorical standards are not set or determined on the basis of protecting sludge quality; rather, they are based on a particular industry's ability to achieve a certain degree of toxic removal with a specified technology. A local program with locally derived standards would be much more likely to deal with the sludge issue in a realistic manner.

We continue to urge you to move forward with this extremely important legislation that will enable cities with good pretreatment programs and adequate standards to move forward without further delay. We stress that only these cities will be eligible for consideration under your bill and that EPA will be in a position to save scarce resources rather than spend more money as some have suggested. In the final analysis, we believe that your legislation would give cities a strong incentive to develop effective and environmentally sound programs that make sense to them. Such a program is much more likely to be enforced than one that has no relation to the local situation. We look forward to continuing to work with you and would appreciate your calling on us to provide any further assistance that you feel may be necessary.

Sincerely,

Ron M. Linton
Executive Director

National Solid Wastes Management Association

1120 CONNECTICUT AVENUE, N.W. • SUITE 930 • WASHINGTON, D.C. 20036
TELEPHONE (202) 659-4613

EUGENE J. WINGERTER
EXECUTIVE DIRECTOR

Testimony of

John A. King

Director
Environmental Services of Systech Corporation
Xenia, Ohio

Institute of Chemical Waste Management

National Solid Wastes Management Association

Before

The SubCommittee on Environmental Pollution

Committee on Environment and Public Works

U.S. Senate

April 14, 1983

• Institute of Waste Technology
Waste Haulers Council
Sanitary Landfill Council
Liquid Waste and Sludge Transporters Council
• Waste Equipment Manufacturers Institute
• Institute of Waste Equipment Distributors
• Institute of Chemical Waste Management
• Institute of Resource Recovery
• International Council of Waste Service Industries

few corrections. Thank you for the opportunity to testify before your subcommittee.

Sincerely yours,

R. C. Forney

RCF:scl
Enclosures
cc: The Honorable George J. Mitchell
James Taylor Banks

COMMENTS ON TABLE 2 OF THE NRDC WRITTEN STATEMENT SUBMITTED TO THE ENVIRONMENTAL POLLUTION SUBCOMMITTEE APRIL 14, 1983

DISCUSSION

On April 14, 1983 in his testimony before the Subcommittee on Environmental Pollution of the Senate Committee on Environment and Public Works, James Taylor Banks of NRDC made reference to the incremental discharge of "toxic" pollutants associated with various options being considered for a BAT compliance deadline extension. In response to Mr. Banks' claims in that regard, Senator Mitchell requested the panel participants of the BAT compliance deadline session to submit for the record a statement regarding the accuracy of the discharge levels cited in Table 2 of Mr. Banks' testimony. The following is CMA's response to that request.

The source of the priority pollutant discharge levels in Table 2 is an EPA contractor report by JRB Associates issued in November of 1981 (1).* The report states that levels "are based upon data provided by the Effluent Guidelines Division of the Environmental Protection Agency (EPA)."

Back in late 1981 when CMA first reviewed the JRB report, the Association questioned the basis and validity of the referenced priority pollutant discharge levels. In comments to the Agency (2) in early February of 1982, CMA stated the following:

> "CMA has begun a more in-depth technical review of the JRB report... Among the key items for which further explanation is needed are the industry total toxic metals and organic discharges (see Table 1-1)..."

---

*Note: Column 1 of NRDC's Table 2 is developed from Table 1.1 of the JRB report. Table 1.1 is contained in Appendix A of this document.

Following this submittal to the Agency, CMA initiated a technical study, through an outside contractor, to review certain details of the JRB report. Investigation into the technical foundation for discharge levels reported in JRB Table 1.1 was one aspect of that study. CMA's contractor, Environmental Research and Technology, Inc (ERT), concluded that the data in JRB Table 1.1 was "derived by each EPA project officer using the best information available at the time" (3). ERT found further that frequently estimates of the project officers were backed with "little or no actual support data" and "not based on a specific technology or measurements but rather on an educated estimate."

With this information in hand, in August of 1982 CMA sent the ERT report to EPA stating the following in the cover letter:

> "The ERT review of JRB's technical information base attempted to substantiate the data developed by JRB. In particular, ERT examined the sources of the information contained in Table 1-1 (industry total toxic metals and organics discharges) and Table 4-4 (total costs of the options for POTWs and industry). ERT found that the use of discrete values in these tables is misleading in light of the numerous assumptions and "best guesses" used in developing the values. ERT concluded that the subsequent use of these values in JRB's cost/benefit analyses yields results that are at best unreliable and subject to significant error. We are concerned that JRB has failed to qualify the results of its analysis by clearly stating its limitations and highlighting the weaknesses of the data base (especially the data on Tables 1-1 and 4-4). Although there is merit to JRB's attempt to quantify the impact of pretreatment, we nevertheless recommend that the Agency not use the JRB data absent an identification and evaluation of the data's limitations."

The foregoing discussion outlines CMA's documented concerns with the priority pollutant discharge levels presented in Table 1.1 of the JRB report. We believe several numbers used in the table are erroneously high, some are outdated, and few appear to be backed by actual discharge data.

In order to provide the Subcommittee with a more realistic view of the impact of a BAT compliance deadline extension, we have compiled the most recent EPA data associated with each of the effluent guideline industrial categories (see Table 1). We cannot testify to the accuracy of each of these numbers, but with one notable exception, we believe they are more up-to-date and have a better technical foundation than the JRB estimates used by Mr. Banks.

The one exception is the EPA estimate for the Organic Chemicals and Plastics/Synthetic Fibers (OCPSF). In this case, EPA states that after installation of BPT the industry will be discharging an average annual load of 668 million pounds of priority pollutants. This level corresponds to a loading of 1.2 million pounds/year from the average plant or a priority pollutant concentration of 170 ppm in the average OCPSF discharge! This figure is totally unrealistic.* Actual OCPSF plant discharge monitoring data indicates that concentrations are typically in the range of 0.2-3 ppm, with the average plant having less than 1 ppm. Based upon actual data from 55 plants within the OCPSF category, CMA projects that current priority pollutant discharge levels are in the range of 4-8 million pounds annually. This is in contrast to EPA's estimate for current discharges of 892 million pounds per year and JRB's estimate of 119.1 million pounds per year. Our estimated level for current OCPSF discharges should also be compared to EPA's estimated discharge levels of 20 million pounds per year after BAT treatment. This comparison supports the chemical industry's contention that we do not now have a national "toxics" problem and should be able to seek modifications from additional control requirements on a case-by-case basis.

*EPA has recently acknowledged this fact.

TABLE 1: Priority Pollutant (So-Called "Toxics") Discharges by Industry (Direct Dischargers) - A Comparison of EPA Guideline Estimates* and Levels Reported by NRDC in Senate Subcommittee Testimony on April 14, 1983

Industry	NRDC		EPA Guideline Estimates					Comments
	Current to BAT		Current to BPT	BPT to BAT	Current to BAT	Federal Register Date of		
	lbs/mo	10^6 lbs/yr	10^6 lbs/yr	10^6 lbs/yr	10^6 lbs/yr	Proposal	Promulgation	
Iron and steel	530,000	6.360	0	6.4	6.4		5/27/82	"Toxics" removed all associated with BAT
Inorganic chemicals	46,666	0.560	0.81	0.28	1.09	-	7/31/82	
Textiles	16,083	0.193	0	0	0	-	BPT - 6/30/77 BAT - 9/2/82	BPT in place, BAT = BPT
Petroleum refining	24,166	0.290	0	0	0	-	BPT - 5/9/74 BAT - 10/18/82	BPT in place, BAT = BPT
Pulp and paper	8,333	0.100	0	0.10	0.10	-	11/18/82	Data not supplied
Steam electric	56,666	0.680	0	0.157	0.157	-	BPT - 10/8/74 BAT - 11/19/82	BPT in place, BAT data not supplied
Leather tanning	6,333	0.076	0.04	0	0.04	-	11/23/82	BAT = BPT
Porcelain enameling	21,666	0.260	0.21	.001	0.21	-	11/24/82	-
Coal coating	21,866	0.262	0.16	.001	0.16	-	12/1/82	-
Electrical	6,666	0.080	0.18	0	0.18		4/8/83	BAT = BPT for toxics
Battery	16,672	0.200	0.16	.002	0.16	11/10/82	6/83**	-
Metal finishing	466,666	5.600	0	0	0	-	1/21/83	BPT in place, BAT = BPT
Aluminum forming	233,346	2.800	0.2	0.04	0.24	11/22/82	7/83**	-
Copper forming	47,500	0.570	0.06	0.01	0.07	11/12/82	7/83**	-
Foundries	174,166	2.090	0.63	0.002	0.63	11/15/82	8/83**	-
Pharmaceuticals	916	0.011	0.02	0	0.02	11/26/82	9/83**	BAT = BPT for toxics
Pesticides	2,000	0.024	0	0.34	0.34	11/30/82	12/83**	"Toxics" removed all associated with BAT
Nonferrous	1,691,666	20.300	0.004	2.7	2.7	2/17/83	1/84**	-
Organic Chemicals and Plastics/Synthetic Fibers (OCPSF)	5,950,000	71.400	EPA (224)*** Industry 0	(648)*** <4-8	(872)*** <4-8	3/21/83	3/84**	EPA estimates erroneously high***
TOTAL	9,311,377	111.856	2.5	14-18	16-20	-	-	NRDC estimates high by a factor of 6-71

*Note: Estimates taken from publications of EPA proposed or final guideline regulations for industry.

**Note: Court ordered EPA deadline for promulgation.

***Note: EPA's estimates for priority pollutant discharges by the OCPSF industry are grossly overstated. After discussions with industry representatives, the Agency now concurs with this conclusion. EPA has issued a disclaimer stating that its estimates are high. The best data available to industry indicates that EPA's estimates are off by a factor of 100 (see attached calculations which are the basis for industry estimates). Current discharges are estimated @ 4-8 x 10^6 lbs/yr.

Using EPA's estimates for all but the OCPSF category, for which we have used our own estimate, we project that going from current treatment to BAT will reduce priority pollutant discharges by up to 16-20 million pounds per year versus Mr. Banks' estimate of 112 million pounds per year. CMA believes that these estimates are consistent with the numerous studies that show existing treatment facilities are doing a much better job than previously expected. We also believe that the data illustrates that a reasonable BAT compliance deadline can be incorporated into the Act and that the nation does have time to consider case-by-case BAT control versus across-the-board BAT application.

HJC:mes
4/26/83

REFERENCES

1. JRB Associates, "Assessment of the Impacts of Industrial Discharges on Publicly Owned Treatment Works," for EPA, Contract No. 69-01-5052, Washington, DC, November 20, 1981.

2. CMA Comments to EPA on the JRB Report, Letter to Mr. Thomas O'Farrell from Dr. Geraldine V. Cox on February 5, 1982.

3. ERT, Inc, "A Review of the Technical Information Base Developed in Support of a Regulatory Impact Analysis for General Pretreatment Regulations," for CMA, ERT Document No. B409-500-1, Washington, DC, April 30, 1982.

4. CMA Comments to EPA on the JRB Report, Letter to Mr. Frederick Eidsness from Dr. Geraldine V. Cox on August 24, 1982.

Table 1-1. Comparison of Direct Versus Indirect Discharges*

Indirect Discharge**

Industry	Total Toxic Metals (Pounds/Year)			Total Toxic Organics (Pounds/Year)		
	Raw	Current	BAT	Raw	Current	BAT
Metal Finishing/ Electroplating	130,000,000	32,000,000	3,900,000	96,000,000	28,100,000	12,100,000
Iron and Steel	12,000,000†	3,100,000	72,000	29,000,000	7,200,000	1,200,000
Leather Tanning	5,700,000	5,700,000	400,000	882,000	880,000	880,000
Aluminum Forming	6,400,000	4,300,000	0	--	210	40
Pulp, Paper, Paperboard	3,900,000	3,900,000	3,900,000	1,000,000	1,000,000	1,000,000
Inorganic I & II	3,...,000	1,400,000	80,000	--	--	--
Porcelain Enameling	1,400,000	1,...,000	0	--	--	--
Copper Forming	970,000	970,000	30,000	--	--	--
Organics & Plastics	790,000	797,000	79,010	171,000,000	184,000,000	43,000,000
Textiles	880,000	880,000	870,000	1,080,000	1,080,000	1,080,000
Petroleum Refining	880,000	872,000	880,000	2,000,000	2,000,000	2,000,000
Foundries	1,700,000	330,000	0	220,000	90,000	--
Coil Coating	380,000	210,000	210,000	3,300	1,900	1,900
Electrical	160,000	160,000	160,000	213,000	220,000	88,000
Battery	2,300,000	180,000	0	103	80	1
Non Ferrous	--	130,000	10,000	1,600	630	630
Paint	818,000	130,000	130,000	300,000	40,000	39,000
Steam & Electric	30,000	30,000	2,000	--	--	--
Pesticides	24,000	18,000	0	240,000	240,000	30,000
Timber	6,900	6,300	6,300	110,000	46,000	46,000
Ink	2,000	1,900	900	8,900	1,300	1,300
Pharmaceuticals	93,000	--	--	--	--	--
Totals	160,000,000	68,000,000	9,900,000	300,000,000	160,000,000	61,000,000

Direct Discharge

Industry	Total Toxic Metals (Pounds/Year)			Total Toxic Organics (Pounds/Year)		
	Raw	Current	BAT	Raw	Current	BAT
Metal Finishing/ Electroplating	44,000,000	1,300,000	1,900,000	22,000,000	9,800,000	4,000,000
Iron and Steel	10,000,000†	2,400,000	880,000	28,000,000	4,900,000	280,000
Leather Tanning	530,000	83,000	13,000	90,000	18,000	4,000
Aluminum Forming	4,900,000	2,900,000	0	--	410	280
Pulp, Paper, Paperboard	4,800,000	2,900,000	2,900,000	8,900,000	630,000	520,000
Inorganic I & II	7,...,000	700,000	140,000	--	--	--
Porcelain Enameling	270,000	260,000	0	--	--	--
Copper Forming	940,000	880,000	30,000	--	--	--
Organics & Plastics	154,500,000	7,100,000	2,700,000	447,000,000	112,000,000	46,000,000
Textiles	470,000	380,000	220,000	710,000	86,000	92,000
Petroleum Refining	1,340,000	880,000	280,000	5,900,000	20,000	10,000
Foundries	11,000,000	1,700,000	0	1,400,000	280,000	0
Coil Coating	440,000	380,000	0	4,000	2,400	0
Electrical	62,000	62,000	62,000	104,000	88,000	19,000
Battery	880,000	300,000	--	77	73	0
Non Ferrous I	83,000,000	14,000,000	0	18,000,000	6,900,000	800,000
Paint Forming	21,000	6,900	900	88,000	1,300	1,300
Steam & Electric	700,000	700,000	20,000	--	--	--
Pesticides	21,000	11,000	1,000	220,000	18,000	1,000
Timber	--	--	--	--	--	--
Ink	--	--	--	--	--	--
Pharmaceuticals	30,000	11,000	--	--	--	--
Totals	310,000,000	38,000,000	8,100,000	540,000,000	130,000,000	50,000,000

*Does not include Paragraph 8 subcategories, and based on EPA projections

**Loadings are estimated on pounds discharged into sewers prior to treatment at the POTW

†Refers to 1972 discharge

APPENDIX A

APPENDIX B

OCPSF INDUSTRY PRIORITY POLLUTANT DISCHARGE CALCULATIONS

I. EPA Information (from Federal Register/Vol. 48, No. 55/ Monday, March 21, 1983/proposed rules)

- Number of Direct Discharge Plants
  - 566 (p. 11846)
- Average Flow for Direct Discharge Plants
  - 2.31 million gallons/day (p. 11830)

II. Industry Data

- Du Pont Direct Dicsharge Plants
  - 25 plants
  - Average of 8 priority pollutants detected above 10 ppb.
  - Summation of priority pollutants in average discharge: 0.8 ppm (see Table 1B).
  - Average discharge flow = 3.7 mgd
- Sample of CMA OCPSF Direct Discharge Plants
  - 55 plants
  - Average of 8 priority pollutants detected in discharge above 10 ppb.
  - Summation of priority pollutants in average discharge: 0.97 ppm (see Table 2B).
  - Average discharge flow = 4.5 mgd

III. Mass Discharge Calculation

Extrapolating the average of actual discharge concentrations to the entire industry for annual mass discharge levels can be done using several methods, for example:

A. Using EPA Flow Estimates for Industry and CMA Concentrations

(566 plants)(2.31 mgd/plant)(365 d/yr)(8.34 lbs/mg/ppm)(0.97 ppm) = 3.9×10^6 lbs/yr Say, 4 million lbs/yr

B. Using EPA Plant Estimate and CMA Average Concentrations and Flows

(566 plants)(4.5 mgd)(8.34 lbs/mg/ppm)(0.97 ppm)(365 d/yr) = 7.5×10^6 lbs/yr Say, 8 million lbs/yr

Table 1B

SURVEY OF 25 DU PONT OCPSF PLANTS REGARDING PRIORITY POLLUTANT DIRECT DISCHARGES

OPS Plant	Typical WWTP Flow, MM gal/day	WWTP Effluent, mg/ℓ	Number of PP's in Effluent	Mass Discharge	
				lb/day	M lb/yr
1.	2.0	<0.4	7	7	2
2.	7.6	2.7	18	171	62
3.	1.8	3.1	10	46	17
4.	3.0	<0.4	6	10	4
5.	2.3	1.5	10	29	10
6.	28	1.7	18	397	145
7.	2.0	<0.2	6	3	1
8.	2.5	<0.6	6	12	5
9.	2.0	<0.3	9	5	2
10.	1.0	2.4	4	20	7
11.	4.3	<0.9	15	32	12
12.	0.4	<0.2	4	<1	<1
13.	2.1	<0.1	4	2	<1
14.	2.9	0.2	6	5	2
15.	2.1	1.2	12	21	8
16.	2.5	<0.2	6	4	2
17.	1.0	0.2	7	2	<1
18.	0.6	<0.4	6	2	<1
19.	3.5	<0.9	7	26	10
20.	1.3	0.3	8	3	1
21.	10	0.6	14	50	18
22.	0.4	<0.2	5	<1	<1
23.	6.9	0.2	6	11	4
24.	2.3	<0.3	7	6	2
25.	1.2	<0.5	6	5	2
Avg. All OPS Direct Dischargers (Range)	3.7 (0.4-28)	0.8 (<0.1-3.1)	8 (4-18)	35 (1-397)	13 (<1-145)

Table 2B

SURVEY OF 8 CMA MEMBER COMPANIES REGARDING OCPFS PRIORITY POLLUTANT DIRECT DISCHARGES

Company	No. of Plants	Ave. Flow (mgd)	Ave. PP Conc (ppb)	Ave. No. of PP/Plant
1	8	10.3	676	5
2	3	2.8	268	16
3	3	5.2	770	19
4	4	5.6	1870	3
5	6	2.6	270	8
6	2	0.25	857	19
7	4	2.9	3480	2
8	25	3.7	800	8
	55	4.5*	970*	8

*Flow-weighted average

E.I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE 19898

EXECUTIVE VICE PRESIDENT

May 19, 1983

The Honorable John H. Chafee
United States Senate
523 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Chafee:

This letter is in response to the questions submitted by Senator Stafford concerning the methodology for BAT modifications under the Clean Water Act. We believe a workable, conservative approach to the control of toxic pollutants can be developed.

Senator Stafford notes correctly the general lack of numerical criteria for toxic pollutants in state water quality standards and asks how one can demonstrate that a discharge poses no unacceptable risk to the receiving waters under those circumstances. Simply stated, the process as we view it would result in the generation of numerical standards where none now exist and a demonstration, where possible, of compliance with such standards. My written testimony goes into some detail, but the discussion is necessarily general because of the variability in receiving waters, proposed discharge levels, pollutants, and associated scientific knowledge.

Two basic questions are involved. The first is what is a safe concentration of the relevant toxic pollutant(s) in the receiving stream, considering the designated use of the stream. This question can be answered using the same type of environmental assessment that is currently conducted in establishing water quality standards. The applicant would have to undertake an aquatic toxicological evaluation of the river and the organisms in it, the scope of which can be agreed upon beforehand with the permitting agency. The results would be submitted to the agency, which would make the final determination as to a safe concentration. Du Pont's Haskell Laboratory for Toxicology and Industrial Medicine has developed a tiered approach for assessing effluents depending on the margin between effect and exposure concentrations. An outline of this methodology is attached for your consideration.

The second question involves the proposed discharge level and its relation to receiving water concentrations. This inquiry can be resolved with effluent and receiving water analytical data as we did at our Beaumont plant. The applicant would have the burden of demonstrating that the proposed discharge will not result in concentrations of toxics in the receiving stream in excess of the approved safe levels established in response to the first question. Such a demonstration would allow the permit writer to presume safely that the discharge will not pose an unacceptable risk to the environment.

In summary, we feel our approach is a reasonable one from the standpoint of logistics and implementation and, most importantly, in protecting water quality. We welcome the opportunity to discuss Clean Water Act amendments with your subcommittee. Please do not hesitate to contact me if you have any further questions in this regard.

Sincerely yours,

R. C. Forney

RCF:cde
Attachment
cc: The Honorable Robert T. Stafford

ENVIRONMENTAL ASSESSMENT OF INDUSTRIAL EFFLUENTS FOR BAT MODIFICATIONS

Basic Concepts

1. The basic approach for assessing the impact of industrial effluents (or pure compounds) on human health and aquatic life involves a comparison between the environmental effect and environmental exposure concentrations. Decisions regarding the safety or hazard of an effluent should be based on the margin of safety between effect and exposure concentrations.

2. Margins of safety can be either estimated or measured. If estimated, the margin of safety should be larger to account for the uncertainty of these estimates. If measured, the margin of safety can be smaller due to the increased confidence in the determination of effect and exposure concentrations.

3. The type and amount of information required to perform an environmental safety assessment depends on several factors which are specific to individual plant sites. Consequently, no single approach for BAT modification assessment is applicable to all plant sites.

4. A limited mixing zone or allocated impact zone which serves as an area of initial dilution in the immediate vicinity of a point source of pollution must be considered. The location, size and shape of the allowable mixing zone depends on site specific factors associated with the effluent discharge and the receiving water body.

5. There is no "zero risk" because there is no "zero exposure." The ability to find chemicals in the environment is only limited by our analytical capabilities. However, for a specific chemical or effluent there are exposure concentrations which do not represent an unacceptable risk to either human health or aquatic life.

General Approach

A sequential tiered approach for collecting and evaluating data with the margin between effect and exposure concentrations being the guide to all decisions regarding safety or hazard, is both cost-effective and technically sound. A tiered approach integrates the necessary effect and exposure data into several stages. At each stage or tier, one of the following three decisions can be made:

- The effluent does not represent a significant hazard to human health or aquatic life because of the large margin of safety between exposure and effect concentrations (no additional information required).

- The effluent represents an unacceptable hazard because the exposure concentration exceeds the effect concentration.

- Additional data are needed to adequately define the margin of safety between exposure and effects.

A tiered approach will separate at an early stage those effluents that do not require additional treatment from those that do. It will also identify effluents for which additional environmental exposure and effects data are required before a decision can be made. This approach will allow industry and regulatory agencies to concentrate their limited resources on identifying and treating effluents which are actually causing a water pollution problem.

Detailed Approach

Basic Site Specific Data: The purpose of this stage is to gather existing data and utilize it to define additional information needs.

- Plant Operation
  - Chemical used and produced
  - Production schedules: continuous vs. batch
- Effluent Treatment
  - Type of treatment
  - Physical/chemical characteristics: BOD, TOC, pH, SS, TDS
  - Flow rate: high, low, average
  - Discharge device and plume pattern
- Receiving Water
  - Physical/chemical characteristics
  - Flow rate: high, low, average
  - Use classification requiring protection: aquatic life, drinking water, recreational, industrial, agricultural
  - Ecosystem description: previous stream survey data and results of diatometer studies

- Existing Chemical Monitoring, Toxicity and Bioconcentration Potential Data

Tier I Screening: The purpose of this tier is to make initial exposure and effect concentration estimates to identify those effluents for which a minimum amount of data are required to assess margin of safety.

- Exposure Concentration Estimates
  - Calculate exposure concentrations from average and low flow rate data for effluent and receiving water
  - Apply simple hydrological models to define mixing zone
- Effect Concentration Estimates
  - Conduct series of acute toxicity tests with appropriate aquatic organism to define variability in effluent toxicity
  - Review mammalian toxicity data on major constituents in effluent
  - Review plant operation data for chemicals which may represent a bioconcentration potential

Tier II: The purpose of this tier is to refine estimates/measurements for effluents that do not have large margins of safety (i.e., <1,000) as determined from Tier I.

- Exposure Concentration Measurements
  - Measure concentrations of selected priority pollutants in effluent
  - Measure concentrations of selected priority pollutants in receiving water (upstream, mixing zone, and downstream)
  - Refine models for defining mixing zone based on receiving stream measurements
- Effect Concentration Measurements
  - Conduct acute toxicity tests on 2-4 additional aquatic species to assess range in species sensitivity
  - Conduct time independent acute toxicity tests to assess persistence and cumulative toxicity

- Conduct chronic toxicity test(s) to determine effects on reproduction and growth

- Estimate bioconcentration potential of selected constituents in effluent using octanol/water partition coefficient data and/or reverse phase liquid chromatography

Tier III: The purpose of this tier is to measure exposure and effect concentrations by conducting on plant site studies for effluents with small margins of safety (i.e., 10-20).

- Exposure Concentration Measurements

  - Define zone of impact with effluent plume studies

  - Measure concentration of selected effluent chemicals in receiving stream, sediments and fish

- Effect Concentration Measurements

  - Conduct on site acute and chronic toxicity tests (mobile laboratory and caged fish studies)

  - Conduct upstream/mixing zone/downstream field surveys

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Statement of
Kenneth E. Blower, The Standard Oil Company of Ohio

on behalf of the
American Petroleum Institute

before the
Senate Subcommittee on Environmental Pollution

Environment and Public Works Committee
United States Senate

Hearing on
Clean Water Act Amendments of 1983

Testimony presented before the Senate Subcommittee on Environmental Pollution, Washington, D.C., April 14, 1983.

I am Kenneth E. Blower, Manager of Environmental Programs for The Standard Oil Company of Ohio. I am representing the American Petroleum Institute as chairman of API's Water Program Committee.

The American Petroleum Institute (API) welcomes the opportunity to present its views on Senate bills S.431 and S. 432. After more than a decade of experience under the Clean Water Act, we believe it is appropriate for Congress to recognize how much improvement in water quality has been achieved and to focus on ways to achieve further improvements.

S.431 is a useful vehicle for prompt congressional consideration of at least some Clean Water Act issues, but we believe its scope is too limited. A number of important components of the act which should be refined but are not addressed in the bill include:

- o The National Pollutant Discharge Elimination System
- o The Treatment of New Sources
- o Application of Ocean Discharge Criteria
- o Best Available Technology Requirements
- o Dredge and Fill Permit Program

API's views on the first four issues are included in the second part of our statement. We would like to discuss the Dredge and Fill Permit Program with you at a later date. We are also including our views on federal common law which was the subject of a hearing on April 6, 1983. We believe that a federal common law amendment should not be included in any Clean Water Act legislation.

In short, we urge Congress to undertake a more comprehensive revision of the Clean Water Act than S. 431 contemplates to ensure cost-effective progress in restoring and maintaining the quality of the nation's waters.

The first part of our statement addresses provisions of S. 431 and S. 432 relating to

- o Compliance Dates
- o Water Quality Standards

- Authorization
- Civil Penalties, and
- Award of Fees.

I. S. 431 and S. 432

Compliance Dates

API agrees that additional time must be granted to enable industry to comply with Best Available Technology (BAT) and Best Conventional Technology (BCT) guidelines but is concerned that the specific dates provided in S.431 are unrealistic in light of past experiences. S.431 allows various extensions of the BAT and BCT compliance deadlines depending on when effluent limitations are promulgated. Compliance with BAT for toxic / pollutants must be no later than January 1, 1986, for industries whose effluent limitations were promulgated on or before January 1, 1983, and no later than July 1, 1987, for industries if promulgation is later. The deadline for compliance with BAT for nonconventional pollutants is extended to January 1, 1986; compliance with BCT limitations is to be no later than July 1, 1987.

These final dates will not provide enough time for many industrial facilities. BAT limitations have not been promulgated for some industries. BCT regulations have not been promulgated for most industries and will not be promulgated until some time after issuance of the final generic BCT guidelines. Moreover, historically, promulgation schedules have been subject to substantial slippage. Industries whose limitations have not been promulgated by July 1, 1984, may not have adequate time to comply.

For example, EPA is developing BAT guidelines for the oil and gas extraction segment of the petroleum industry but has not set the date when those guidelines will be issued. Because this category is not covered by the strict schedule of the Toxics Settlement Agreement, the final guidelines will most likely be issued after July 1984. Therefore, depending on the exact requirements of the BAT guidelines, this segment of the industry may not have enough time to comply with the dates in S. 431.

For the refining industry, EPA promulgated final BAT guidelines in October 1982. However, the Natural Resources Defense Council has filed a petition in the D.C. Circuit Court of Appeals for review of these guidelines. While API believes the promulgated guidelines to be technically and legally sound, there is always the possibility that changes might yet occur in the guidelines due to protracted litigation. In that case, a final compliance date of July 1, 1987, or any other fixed date,

could provide insufficient time to design, install, and "bring on line" any additional technology.

API therefore recommends that specific dates for compliance with BAT and BCT limitations be deleted. Instead, we support an approach similar to that of S. 432. That is, compliance should be required no later than 36 months from the dates BAT and BCT limitations are established.

Water Quality Standards

We are particularly concerned about S. 431's water quality standard provision. Section 6 of S.431 would require states to "maintain as a minimum use the designated use existing on January 1, 1983." This language would severely constrain the flexibility that the states need to effectively manage their water quality programs. API believes that Section 6 of S.431 should be deleted because it would require that unattainable use designations be retained and because it preempts the states' ability to fully consider local environmental, social and economic conditions.

Senators Chafee and Randolph indicated, when introducing the bill, that Section 6 was included in response to EPA's proposed revision of its state water quality standards regulation (FR 49234, October 29, 1982). The Senators expressed concern with EPA's proposed antidegradation policy and the proposed use of benefit/cost assessments to determine if the designated use of a water body is attainable.

In the preamble to the water quality standard regulations, EPA presented three antidegradation options for discussion. The option which appears to concern critics of the proposed regulation would allow existing uses to be lowered under certain economic and social conditions.

However, this option was not chosen by EPA and was not endorsed by many in industry including API. The antidegradation policy actually proposed by EPA is very similar to the existing policy which to our knowledge has never been questioned by Congress. Both provide that if a stream is meeting its designated use, no reclassification to lower its use designation is allowed. In cases where water quality is higher than necessary to meet a designated use, the existing regulations provide that states may adjust water quality, based on economic or social development needs.

EPA's proposed antidegradation policy would alter the current situation by eliminating the requirement for a special public hearing for that purpose. The proposal, however, does not eliminate public participation in such a decision. The public will continue to have the right to participate through the National Pollutant Discharge Elimination System permit proceedings, whenever the agency is considering an adjustment to

permit limitations because actual stream conditions exceed the level needed to meet the designated use. To provide for an additional separate public hearing, as is done in the existing regulation, is redundant. Moreover, in both the existing policy and the revised policy, the water quality cannot be lowered below the level required to protect the designated use.

Both EPA's existing and proposed regulations would allow the states to consider whether a designated use is attainable. Under certain specified conditions, states may propose to reclassify the designated use, providing a full public hearing is held. These specific conditions include irreversible, natural or man-induced background levels of certain substances and the substantial and widespread economic impact of requiring effluent limitations more stringent than BAT. However, the proposed regulations would also allow the specific consideration of the costs and benefits of attaining the designated use.

This is both a reasonable and a necessary approach to effective water quality management. There are a number of situations where designated uses are not being met and cannot be met. In some cases, the original use designation is overly broad or was based on insufficient or inaccurate data. In other cases, the costs of upgrading a stream to the designated use are prohibitive and the benefits to be derived do not justify the costs.

States should be allowed to consider whether a designated use is attainable and to evaluate the costs and benefits of attaining a designated use. Such considerations do not replace the requirement to install water pollution control equipment to meet the act's technology-based requirements (i.e., BCT, BPT, BAT). Rather, they ensure that water quality standards are scientifically based and cost-effective.

EPA proposed these regulations to increase the effectiveness of the states' water quality programs. Following the passage of the Federal Water Pollution Control Act of 1972, states were required to designate use goals for all streams and water bodies. Many states set a broad goal of "fishable and swimmable," for virtually every water body in their jurisdictions. In some cases, those goals were adopted with little actual data and have proven not feasible or too costly to attain. As a result, EPA has responded by issuing proposed regulations that would enable the states to consider local conditions and costs and benefits when developing water quality standards.

Giving the states more authority for establishing local water quality standards furthers the act's stated congressional intent. Section 101(b) of the Clean Water Act states that the policy of Congress is to recognize, preserve and protect the primary responsibilities and rights of the states in controlling and preventing water pollution.

Because the biological, chemical and physical characteristics of individual water bodies vary from state to state, the states should have the flexibility to develop specific water quality standards that reflect local conditions. Such flexibility will not interfere with the implementation of the technology-based standards of the act. Rather, it will ensure that effective water quality standards are tailored to the specific uses of specific bodies of water.

Implementation of EPA's proposal would lead to a water quality management program which is both technically defensible and which gives full consideration to the characteristics of local bodies of water. Moreover, the regulations would return the primary responsibility for establishing water quality standards to the states, as Congress so wisely recognized in Section 101(b) of the act.

In sum, API urges Congress to carefully weigh the need for any amendments to Section 303 of the act against the true intent and content of EPA's proposed program.

Authorization

Section 2 of S.431 provides reauthorization and funding of the Clean Water Act for five years. API believes the five-year reauthorization is too long because the bill does not address many issues of concern to industry and the act would probably need to be revised within that time.

Civil Penalty

Section 8 would amend Section 309(d) of the Clean Water Act by raising the maximum civil penalty which can be assessed for violations of the act from $10,000 to $25,000 per day. API believes that the existing maximum penalty of $10,000 is more than adequate to assure good faith efforts to comply with the act.

Despite the utilization of the best technology and the efforts of the most highly trained personnel, unintentional exceedances of permit limitations can and do occur. Some exceedances may be nothing more than the result of extreme analytical variability inherent in the use of most methods for chemical analysis. Nonetheless, these results must be reported as part of a facility's self-monitoring report, as required by the National Pollutant Discharge Elimination System permit program. Allowing the assessment of a penalty of $25,000 for such an occurrence is unduly punitive.

Award of Fees

Section 10 would amend Section 509(b) of the Clean Water Act and empower the reviewing court to award attorneys' fees and other litigation costs to a "prevailing or substantially

prevailing party whenever it determines such award is appropriate." API questions the need for such a provision. However, if a provision is included, it should be more specific about who must pay the "costs of litigation."

While the non-prevailing party, logically, must pay, the provision might be improperly construed to include interveners (that is, third parties). Interveners frequently become parties of litigation under Section 509(b)(1) merely to protect their interests in possible settlement negotiations which might affect them. In most cases, the interveners' interests are somewhat limited and their participation assists the judicial process in making better reasoned decisions by bringing to light all relevant considerations.

Fairness indicates that interveners not be required to pay the costs of litigation. We therefore propose that the provision be specifically limited to principal parties and that interveners be neither eligible for reimbursement of litigation costs nor required to pay a portion of the litigation expenses of other parties to the litigation.

II. Other Major Clean Water Act Issues

The American Petroleum Institute believes that the following aspects of the Clean Water Act need to be modified to ensure continued progress in restoring and maintaining the nation's waters:

- o The National Pollutant Discharge Elimination System
- o The Treatment of New Sources
- o Application of Ocean Discharge Criteria
- o BAT Requirements

The National Pollutant Discharge Elimination System

API recommends that the National Pollutant Discharge Elimination System (NPDES) permit program be made more manageable (1) by extending the maximum lifetime of permits to 10 years and (2) by providing a means for the EPA Administrator to exclude insignificant discharges from the permit program.

1. Extending the maximum lifetime of NPDES permits. The existing five year maximum lifespan for NPDES permits imposes unnecessary burdens and costs on industry, EPA and states alike. It may take as long as year for a final permit to be issued. Up to three years may be required to install treatment technology necessary to comply with permit conditions. This

scenario leaves little time to obtain data on effluents before the permit has to be renewed.

It has been estimated that about 65,000 permits have been issued since 1972.[1] EPA and the states are now facing an increasing backlog of permits which have expired and must be reissued. This problem could be alleviated in the future by amending the act to provide permit authorities the flexibility to issue permits for terms up to 10 years.

Extending the lifetime of an NPDES permit would not adversely impact water quality. Section 122.9(e) of EPA's Consolidated Permit Regulations authorizes issuance of permits for durations less than the full allowable term. In addition, Section 402(b)(1)(C) of the act provides for the termination or modification of an extant NPDES permit for cause. Therefore, EPA and the states have adequate flexibility to issue fixed-life permits of less than 10 years and to reopen a permit which was issued for a full 10-year term if individual conditions warrant.

Moreover, the 10-year lifetime would make the NPDES permit program more consistent with permit programs enforcing other environmental laws. Congress has not placed restrictions on the duration of permit terms under the Resource Conservation and Recovery Act (RCRA) and the Clean Air Act.

2. Excluding insignificant discharges. Thousands of discharges, including many sources of storm water runoff, have little or no adverse impact on water quality yet are regulated under the NPDES permit program. This is both time consuming and costly and imposes an unreasonable and unnecessary burden on both state and EPA permit issuing authorities and industry. Faced with the enormous task of renewing permits for major point source discharges, it is doubtful that permit issuing authorities will be able to act on most minor discharge permit applications during the next several years.

During the first round of NPDES permit issuances under the Federal Water Pollution Control Act of 1972, EPA attempted to exclude many storm water discharges containing insignificant quantities of pollutants from NPDES permit requirements. This exclusion was challenged by the Natural Resources Defense Council (NRDC) which claimed that EPA had no authority under the act to exclude any point source discharges of pollutants.[2] The court agreed with NRDC, and, as a result, EPA now believes

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1 Deputy Administrator, Dr. John Hernandez, Jr., U.S. Environmental Protection Agency, Testimony before the Subcommittee on Environmental Pollution, Senate Committee on Environment and Public Works, February 5, 1982.

2 NRDC v. Train, 396 F.Supp 1393 (D.D.C. 1975), aff'd. NRDC v. Costle, 568 F.2d 1369 (D.C. Cir. 1977).

that it has little or no discretion in its application of the permit program.

Based on a survey of 39 states, the Association of State and Interstate Water Pollution Control Administrators in May 1979 reported that a total of 5,808 major and 36,090 minor NPDES discharge permits had been issued to both industrial and municipal dischargers.[3] The report stated: "about 51 percent of all permits issued ... involved relatively insignificant facilities with respect to point source pollution concerns." In spite of EPA's efforts, thousands of permit applications (some submitted as long ago as 1972) for small sources are still pending.

By excluding insignificant discharges from NPDES permit requirements, both industry and government will be able to better focus on eliminating major sources of pollution from the nation's waters.

Therefore, the act should be amended to provide authority for EPA to exempt environmentally insignificant discharges from the NPDES permit program. That is, EPA should be allowed (a) to exempt appropriate discharges, such as storm water runoff, from categories of point sources and (b) to exempt specific point source discharges on a case-by-case basis.

The Treatment of New Sources

API recommends that (1) the definition of a new source be based on the date an applicable new performance standard is promulgated, rather than on the date it is proposed; and (2) that NPDES permits for new sources be exempted from review under the National Environmental Policy Act and from its associated requirement for an Environmental Impact Statement.

1. Definition of a new source. The Clean Water Act defines a new source as any facility whose construction is begun after the proposal of an applicable new source performance standard. Therefore, any facility meeting this definition must design and construct pollution control technology to comply with the proposed standard.

This situation creates uncertainty for industry. Substantial changes in the performance standard often occur between proposal and final promulgation. Although EPA is required by law to promulgate new source performance standards within 120 days of their proposal, delays of months and even years are not uncommon. Thus, industry is required to design new plants to meet proposed standards which EPA may later change.

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3 Association of State and Interstate Water Pollution Control Administrators, "Recommendation for an Improved National Water Quality Program," Washington, D.C., 1979.

For example, new source performance standards for the Petroleum Refining category were proposed on December 21, 1979. The standards required zero discharge of process water. On October 18, 1982 -- almost three years later -- final standards for new source refineries were promulgated. EPA substantially modified the zero-discharge requirement because, as EPA noted, it would "generate significant adverse non-water quality environmental impacts ... with only marginal additional water pollution reduction benefits."

Therefore, the definition of a new source should be based on the date an applicable new performance standard is promulgated, rather than on the date it is proposed.

2. NEPA requirement for new sources. Under section 511 of the Clean Water Act, issuance of an NPDES permit for a new source is subject to the National Environmental Policy Act (NEPA) and can require the preparation of an Environmental Impact Statement (EIS). This EIS requirement is time-consuming, costly and redundant.

The EIS requirement is intended to ensure that federal agencies address environmental considerations when evaluating a proposed action. However, with EPA deciding on new source permits, environmental concerns are paramount. Moreover, EPA's permit issuing process for new sources provides opportunity for public comment on any potential environmental consequences.

Exempting new sources permits from the EIS requirement of NEPA would make the Clean Water Act consistent with other environmental statutes. The Clean Air Act, the Safe Drinking Water Act and the Resource Conservation and Recovery Act are already specifically exempt from EIS requirements.

Therefore, NPDES permits for new facilities should be exempt from review under the National Environmental Policy Act and from its associated requirement for an Environmental Impact Statement.

Application of Ocean Discharge Criteria

API recommends that the Clean Water Act's ocean discharge criteria provisions be modified to eliminate redundant environmental reviews that result in unwarranted costs and unnecessary impediments to offshore oil and gas exploration and development. Experience and millions of dollars of scientific studies have shown that no unreasonable degradation of ocean waters occurs from activities relating to these operations and that the NPDES permit program adequately protects ocean waters.

Discharges into the ocean of drilling fluids, produced waters, and other wastes associated with the exploration, development or production of oil or gas are regulated under the

NPDES permit program of the Clean Water Act. In addition to the NPDES requirements, the Ocean Discharge Criteria provisions require that 10 environmental impact criteria be considered in the permitting process. The Ocean Discharge Criteria provisions also require companies to supply "sufficient information" in these categories for a permit writer to determine that a proposed discharge will not degrade ocean waters.

The Ocean Discharge Criteria requirement duplicates other important environmental controls that already protect the ocean from unreasonable degradation. First, at the time of every offshore lease sale, state and federal laws require a thorough environmental analysis of the area to be leased. For the Outer Continental Shelf, this means the preparation of a comprehensive environmental impact statement. Second, all offshore operations must meet the strict requirements of the NPDES permit program before discharges are authorized. Finally, before operations can begin, the operator must prepare and have approved by the Department of the Interior a site-specific plan of exploration and an environmental report.

Experience under the act has shown that the ocean is sufficiently protected by these controls. The petroleum industry has demonstrated through numerous studies and reports that typical effluents from exploration and production operations disperse rapidly and have an insignificant effect on marine ecosystems.

The Ocean Discharge Criteria requirement is, in effect, an additional environmental study. And its requirement that companies supply "sufficient information" is so subjective that permit writers have required costly and duplicative studies. The result has been substantial delay and expenses for offshore oil and gas exploration without adding appreciably to existing information or improving water quality.

For example, EPA has issued no general NPDES permits for 14 separate scheduled lease sales in Alaskan waters, despite the agency's announced objective almost a year and a half ago to do so. Beaufort Sea and Norton Basin sales have already been held, and the lessees are attempting to make firm plans and commitments to explore their leases. Without NPDES permits in hand, however, it is generally not prudent to commit to an expensive drilling rig or drilling program.

In short, the ocean discharge requirements in the Clean Water Act are often both expensive and superfluous. They can block efficient and timely permit issuance, and they do not significantly improve water quality. As a result, exploration and development of OCS resources are delayed.

Therefore, the Clean Water Act should be modified to specify:

1. That permit writers can assume that ocean discharges cause no unreasonable degradation of ocean waters if the discharges comply with NPDES permit effluent limitations and conditions.

2. That a separate Ocean Discharge Criteria Evaluation is not required in an area for which an environmental impact statement or analysis has been prepared by the Department of the Interior or a state before a lease sale in the area.

3. That an NPDES permit should not be denied under Section 403 of the Clean Water Act unless EPA determines that the discharge would cause unreasonable degradation of the marine environment.

Best Available Technology Requirements

API recommends that the Clean Water Act's effluent guidelines be modified (1) to designate Best Available Technology (BAT) as equivalent to Best Practicable Technology (BPT) if BPT is adequately controlling the discharge of toxic pollutants, and (2) to allow case-by-case modifications of BAT limitations where appropriate.

1. Designating BAT equivalent to BPT. Greater flexibility is needed in assessing BAT requirements for toxic pollutants in order to recognize the substantial achievements industry has made to date and to avoid "treatment for treatment's sake."

The act's current BAT provisions could be interpreted to require the installation of controls more stringent than BPT in all cases, irrespective of cost effectiveness and the substantial achievements in removing toxic pollutants. For many categories and classes of point sources, BPT is effectively removing toxic pollutants present in raw wastewaters of industrial discharges.

Analytical data obtained by both EPA and industry on petroleum refineries indicate that only a limited number of toxic pollutants are present in refinery raw wastewaters. In fact, only 11 compounds were found having average concentrations greater than 100 parts-per-billion in the raw wastewaters during an extended study at two refineries in the New Orleans area.[4] These named compounds were either not detected or were present at very low concentrations in the final effluents of the refineries. In most cases, greater than 95 percent removal of

4 API Publication 4346, "Refinery Wastewater Priority Pollutant Study -- Sample Analysis and Evaluation of Data," December 1981.

individual toxic pollutants was found in this and other studies.[5]

These data clearly confirm this statement from the December 1980 report by the House Subcommittee on Oversight and Review of the Committee on Public Works and Transportation:

> "... it is now known that basic biological treatment technologies do in fact remove considerable quantities of the toxic (priority) and other pollutants, and in many instances either reduce or eliminate the threat of both acute and chronic toxicity to the aquatic environment." (emphasis added).

Clearly, the development and installation of more stringent technology for industries where BPT adequately controls toxic pollutants is an unnecessary drain on limited time and resources and benefits neither the economy nor the environment.

Therefore, BAT should be designated as equivalent to BPT for those industries where BPT adequately controls the discharge of toxic pollutants.

2. Allowing case-by-case modifications of BAT limitations where appropriate. The 1977 amendments to the act provided for waivers, based on economic and water quality considerations, for BAT requirements for nonconventional pollutants, but not for toxic pollutants.

In limited cases, technology designated as BAT for toxic pollutants may provide significantly more stringent control than is needed to protect receiving waters. Industry-wide BAT limitations fail to recognize that the toxicity of pollutants varies greatly, depending on the characteristics of the pollutant itself and the physical/chemical characteristics of the receiving water. That is, the concentration of a pollutant which will produce a toxic effect in the receiving water varies from stream to stream and from pollutant to pollutant.

Therefore, the act should allow modification of BAT requirements in those limited cases where a discharger can demonstrate that the effluent from its facility does not violate water quality standards or adversely impact the receiving waters.

Federal Common Law

API opposes enactment of any provision which seeks to assure that the Clean Water Act would not preempt other federal law, including federal common law. Such a provision could create havoc in the National Pollutant Discharge Elimination System

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5 API Publication 4296, "Analysis of Refinery Wastewaters for the EPA Priority Pollutants," October 1981.

(NPDES) permit program which provides authorization and conditions for the discharge of pollutants into waters of the United States. Facilities in compliance with their NPDES permits should not be exposed to the uncertainty of federal common law actions for damages and injunctive relief, even closure, on the grounds that their permitted discharges may be nuisances. The stringent water quality and technology-based limits provided in NPDES permits are more than sufficient to abate any nuisance problem.

Such a provision would also countermand the Supreme Court's rationale for its well-reasoned decision in City of Milwaukee v. Illinois, 451 U.S. 304, 101 S.Ct. 1784 (1981). In that case the Court held that the comprehensive water pollution regulatory program created by the 1972 amendments to the Federal Water Pollution Control Act (FWPCA) supplanted the federal common law of nuisance.

Ten years ago, in Illinois I, the Court observed that "new federal laws and new federal regulations may in time preempt the field of federal common law of nuisance." See, 406 U.S. 91 at 107 (1972). In Illinois II, the Court held that the comprehensive regulatory scheme of the Federal Water Pollution Control Act has preempted the federal common law of nuisance. Several weeks later, in Middlesex County Sewerage Authority v. National Sea Clammers Association, 453 U.S. 1, 101 S.Ct. 2615 (1981), the Court reached the same conclusion regarding water pollution regulated under both FWPCA and the Marine Protection, Research and Sanctuaries Act.

The federal courts created the doctrine of federal common law in the absence of federal statutes. In light of the extensive statutory and regulatory requirements of the Clean Water Act, federal common law has no valid role to play.

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STATEMENT OF

GENERAL MOTORS CORPORATION

TO THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ON

COMPLIANCE WITH CATEGORICAL PRETREATMENT STANDARDS BY INTEGRATED FACILITIES

PRESENTED BY

PHILIP E. GERWERT

ENVIRONMENTAL ACTIVITIES STAFF

APRIL 14, 1983

WASHINGTON, D.C.

Mr. Chairman and members of the subcommittee, my name is John A. King. I am Director of Environmental Services of Systech Corporation in Xenia, Ohio. I am appearing before you today as a member of the Institute of Chemical Waste Management, an institute of the National Solid Wastes Management Association. Member companies of the Institute operate commercial waste management facilities which treat and dispose of industrial hazardous waste. The Institute of Chemical Waste Management and the National Solid Wastes Management Association have been in the forefront of support for a comprehensive and effective federal program regulating the management of hazardous industrial waste.

As members of this committee so well know, strong efforts will be made this year to close loopholes in the Resource Conservation and Recovery Act. We are anxious to have an opportunity to express our support in detail for S 757 offered by Senators Chafee and Randolph which would extend and strengthen that Act.

Our concern today is with hazardous waste management in the context of the Clean Water Act. Today, we direct attention to the regulation of risks that may result from discharge of hazardous solids and liquids as well as contained gases to the Publicly Owned Treatment Works (POTWs) commonly known as the sewers. These discharges are regulated under Sections 402, 403 and 307(b) of the CWA which prescribe pretreatment of toxic industrial waste prior to discharge to the

sewers. Recognizing the need to eliminate the burden of unnecessary duplication of regulation under both RCRA of 1976 and CWA as amended in 1977, the U.S. EPA has exempted discharges of listed and characteristic hazardous waste defined under RCRA (40 CFR 261.4), while potentially regulating under the CWA.

However, the U.S. EPA has failed to regulate such hazardous discharges to the sewers under the CWA leaving a significant loophole in regulation. Let me briefly review the long history of failure on the part of the U.S. EPA, industry and the local authorities to regulate hazardous waste discharges to the POTWs and to reiterate our belief that exemption of such discharges of hazardous waste to the sewers under CWA regulation constitutes flagrant violation of proper environmental management and Congressional intent under both CWA and RCRA.

A recent EPA report [(PB 82-153958), "Assessment of the Impacts of Industrial Discharges on POTWs," JRB Associates] indicates that 30 percent (i.e., 5,000) of all the POTWs in the U.S. fail to meet their CWA permit limitations primarily because of hazardous waste accepted in their influents. Most of this is hazardous waste exempted under RCRA. Yet pretreatment of industrial discharges prior to release to the sewers, has not yet been promulgated in final form.

The history of the pretreatment standards begins with the enactment of the FWPCA of 1972 (PL 92-500) which called for an EPA program to

"restore and maintain the chemical and biological integrity of the nation's waters." Under this act the Congress mandated that the EPA "publish proposed regulations establishing pretreatment standards for introduction of pollutants into treatment works which are publicly owned." Congress was concerned about pollutants "which are not susceptible to treatment...or which would interfere with operation." Section 301 of the CWA called for the first round of industrial effluent standards establishing pollutant discharge limitations to navigable waters by 1972 and achievement of these discharge limitations by July 1, 1977 as well as achievement of more stringent limitations restricting toxic pollutant discharges by 1983, including the pretreatment standards for toxic discharges to POTWs.

To make a long story short the U.S. EPA missed all these deadlines. Several environmental groups sued the EPA for failure to execute Congressional intentions to identify the toxic pollutants discharged to both navigable waters and the POTWs by industry. Negotiations concluded in the Flannery agreement which identified 21 categories of industry and 65 classes of toxic pollutants with a 180 day deadline for promulgation by EPA of treatment and pretreatment standards. In the meanwhile, in response to public demand in October 1976 the Congress enacted RCRA. Many of us have lived through the regulatory gyrations since the enactment of the 1977 CWA amendments and the 1976 RCRA to little avail. It is true that by May 19, 1980 the EPA finally defined hazardous waste but in 1981 in spite of the fact that EPA identified some 60,000 facilities which generate, store, or dispose of

hazardous waste and had negotiated 64,000 NPDES permits, over 10,000 facilities failed to meet their toxic NPDES permit limitations.

Last May the EPA Administrator proposed to Congress amendments to the CWA which would enable the Agency to issue industrial categorical standards for discharge to POTWs, on a discretionary rather than a mandatory basis and allow for local exemptions from such standards. Compliance within three years of promulgation of standards was also proposed. In response to judicial pressure and Congressional oversight the EPA, finally, after seven years of promises, has proposed some 21 categorical pretreatment standards which respond in letter to the Flannery settlement but nowhere reach the spirit of Congressional intent.

While the new proposed categorical standards may be readily understood in theory they do not relate to actual POTW practice. The categorical standards specify discharge limitations for individual toxic pollutants. In contrast the POTWs manage all pollutants influent to their facilities on a common basis with no regard to industrial categories or sources of pollutants. Ninety percent of all POTWs are too small to have the capability to characterize the waste influent from individual dischargers to their systems. (Only 10 percent of the POTWs have capacity of over 100 million gallons per day.) The underlying problem with even the best pretreatment standard is that it relies on the enforcement arm of the POTW to regulate against its own customers.

We believe that Congress needs to step in to plug this interstitial gap through which are pouring 5 million metric tons of toxic wastes every year.

We would suggest that the remedy lies in amendments to the Resource Conservation and Recovery Act, not the Clean Water Act, but we believe that the approach which we would recommend to you will also have immediate beneficial effects on the quality of surface waters.

Specifically, we would recommend that RCRA be amended to require that six months following enactment, waste generated by the 21 industries for which pretreatment standards are being developed under terms of a court order would lose their exemption under RCRA unless EPA has completed a rulemaking and the rule is in effect for a particular industry. As you will recall, the entire logic granting exemption to these industries was a supposition that pretreatment standards would be in place to protect POTWs from receiving toxic chemicals and therefore control release of pollutants into the surface water and sludge.

The absence of pretreatment standards or regulatory finding that further controls are not necessary to protect POTWs nullifies the logic of the exemption. Our proposal would still allow wastes for which categorical treatment standards have been mandated but which are <u>not</u> hazardous under RCRA definitions to be governed only by Clean Water Act requirements.

We believe our approach would have two advantages. First, it would encourage EPA to complete its long-delayed rulemakings so that these industries can continue to discharge into POTWs if that is the economical and technically adequate choice for these industries under appropriate environmental rules. Second, in the event that EPA does not promulgate the regulations in a timely fashion, it would ensure that any of these wastes which are in fact "hazardous" by federal definition would be required to be regulated under the RCRA Hazardous Waste Program until such time as enforceable pretreatment standards are developed. Since many pretreatment standards are not available to offer at this time, it is appropriate that RCRA eliminate the exemption which has become an embarrassing loophole.

I will be pleased to respond to any questions you may have.

Thank you.

TESTIMONY OF

FRANCES DUBROWSKI

SENIOR ATTORNEY

NATURAL RESOURCES DEFENSE COUNCIL, INC.

BEFORE THE SENATE SUBCOMMITTEE

ON ENVIRONMENTAL POLLUTION

ON

"THE CLEAN WATER ACT'S PRETREATMENT PROGRAM"

APRIL 14, 1983

Mr. Chairman and members of the Subcommittee, it is a pleasure to be invited to testify here today. When we testified before this Subcommittee last year, we emphasized that the national pretreatment program is one of the Clean Water Act's most important programs for controlling toxic pollutants. More than half, or 60,000 of the nation's industrial polluters, dump their wastewaters in municipal sewage treatment plants.

At least 93 chemicals, including such well-known toxics as lead, mercury, cyanide, and arsenic have been found in these wastewaters. (Table I of these comments describes the adverse health effects of some of the more well-known toxics detected in POTW effluent samples.)

Toxic wastes cause three alarming problems in municipal plants. First, community plants are designed to treat conventional pollutants, not toxics. Toxics often pass through the plant, causing the same health and environmental damage as if they were dumped directly into a waterway.

Second, toxic wastes can destroy a community's huge investment in a sewage treatment plant. They can interfere with a plant's sensitive biological processes, impairing treatment of industrial wastes as well as the much greater volume of community wastewaters. They can affect the structural integrity of the plant, corroding pipes and other equipment. They can expose municipal workers to highly toxic fumes, producing nausea; dizziness; and eye, nose and throat, and skin irritation. In extreme cases, they have exploded the treatment works and its sewer system.

Finally, toxic chemicals concentrate in the sludge wastes produced by a treatment facility. Contaminated sludge is more expensive to dispose of, especially the large volumes generated by municipal plants. If improperly disposed of, the chemicals in the sludge will seep out into groundwater and drinking water supplies, permeate the soil where they can be taken up into the plants we eat, or become air pollutants when the sludge is incinerated.

For these reasons, Congress enacted a national program requiring pretreatment of industrial wastes before they enter municipal plants.

Last year, we pointed out that the pretreatment program had reached a critical turning point. After a decade of data-gathering and bureaucratic foot-dragging, the program was about to accomplish its goals. Developments since that time have proved that statement to be true. At this point, ten national categorical pretreatment standards have been issued in final form; ten others are proposed. Together, these standards will eliminate over 200 million pounds of toxic pollutants from POTW influent each year.

Modest progress has been made at the local level as well. For example, general pretreatment regulations which establish the basic structure of the program were issued in final form in January 1981 after four years of internal agency review. Over 100 POTWs have obtained EPA's approval for local programs which comply with these regulations; many more are on the way to doing

so. Over 64% of the POTWs have now performed an industrial waste survey to identify the sources, amount, and characteristics of their industrial influent, a necessary first step to effective pollution control.

In spite of this progress, much remains to be done. We urge Congress to keep the pressure on and to take two important steps toward fuller pretreatment of toxic pollutants:

1. Congress should remind EPA to grant POTWs authority to issue removal credits only where the data exists to support them.

In 1977, Congress amended the Clean Water Act to permit an industrial user to exceed the national categorical pretreatment standards where it could be shown that a POTW had the ability to remove some of the toxics in its influent. This provision was intended to eliminate redundant treatment, not to weaken the toxic protection afforded by the program. Indeed, at the very time that Congress added the removal credit provision, it also added several other provisions intended to strengthen the pretreatment program.*

Removal credits were to be granted only on a case-by-case basis, and only where the actual removal of the toxic by the POTW could be documented.

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* These include a provision authorizing EPA to take enforcement action directly against industrial users violating their pretreatment standards (§309(f)); a provision requiring EPA to establish comprehensive guidelines for sludge use and disposal and to integrate these guidelines into the pretreatment program (§405); and a provision aimed at insuring that enforcement authorities know the character and volume of industrial wastes entering municipal plants (§402(b)(8)).

EPA has steadily retreated from this mandate. In 1978, it proposed regulations requiring a POTW applying for a credit to document its ability to remove a toxic pollutant 95% of the time. In 1981, it amended these regulations to make a POTW's showing of consistent removal much easier.

Recently, EPA proposed to replace the new removal credit provision with a "national removal credit." The proposed national removal credits are anything but what their title implies. Lacking the data to determine what the majority of POTWs across the nation could actually accomplish, EPA arbitrarily selected a number from an existing study of 40 well-operated POTWs. EPA conceded that 25% of these well-operated POTWs could not attain the removal efficiencies assumed in the proposed national removal credits; in fact, many showed no removal capabilities for some toxics. And EPA acknowledged that the disparity between assumed and actual removal would be much higher in the POTW population nationwide. Although EPA could not actually determine what the rest of the POTWs could do, EPA postulated that the proposed national removal credits would reflect the median performance of POTWs. Thus, half of the POTWs could give industrial users removal credits for reductions which were not taking place at the POTW. Furthermore, EPA eliminated the need for POTWs relying on the national removal credits to monitor and report on their actual removal rates. Thus, EPA would be unlikely to detect which POTWs were operating drastically below the assumed removal levels. At many plants, no controls would be in place at all.

These proposals are shocking from an agency established to protect public health. Congress should direct EPA to abandon them.

2. Congress should pressure EPA to issue regulations for the safe disposal of contaminated sludge.

With adequate sludge disposal guidelines in place, many POTWs may find that smaller credits (requiring even greater levels of pretreatment) are needed, especially for heavy metals. EPA's Regulatory Impact Analysis of this pretreatment program concluded that "virtually all of the metal priority pollutants removed by the POTW collect in the resulting sludge stream." In fact, the high rate of dilution in POTW influent often masks potential sludge contamination problems. EPA's Regulatory Impact Analysis found:

> Several priority pollutants which were reported below their detection limits in most POTW influents regularly were quantified in sludge streams. Pollutants exhibiting this tendency include antimony, arsenic, silver, selonium, phenanthracene/anthracene and pyrene. For example, arsenic was measured above its detection limit in 15 percent of all influent samples, but in 94 percent of all sludge streams.

Section 405 of the Clean Water Act required EPA to develop comprehensive guidelines for sludge use and disposal by 1978, but EPA has yet to do so. We urge Congress to:

-- set a new, realistic date for issuing the regulations,

-- require EPA to identify and address all toxics in sludge, not just the most common heavy metals, and

-- direct EPA to issue regulations which protect public health and the environment from any adverse effects from these pollutants.

By preventing EPA from reneging on removal credits, and by pushing EPA to move forward on sludge disposal regulations, Congress will give the agency the impetus needed for a strong, health-protective program.

Some have also suggested that the program could be improved by adding a "local waiver" provision. Under a local waiver, qualifying POTWs could obtain exemptions from the national pretreatment program. Industrial users, in turn, would no longer have to comply with national categorical pretreatment standards; they would be bound only by locally developed limits on their discharges.

A variety of provisions have been drafted to accomplish this goal. The one included in your bill, Mr. Chairman, is more carefully drafted and more thoroughly considered than others we have seen. Under your bill, a qualifying POTW could only obtain a local waiver if it:

1. had completed an industrial waste survey and obtained EPA approval of its pretreatment program;

2. met secondary treatment requirements;

3. enforced numerical limits for toxic pollutants entering the POTW;

4. met water quality standards for each of the toxic pollutants exiting the POTW; and

5. safely disposed of its sludge.

Initially, EPA would determine the pollutants to be covered and the monitoring requirements for their detection. A qualifying POTW could then apply for, and obtain from EPA, a two year stay of enforcement of the national categorical pretreatment standards. At the end of the two years, the POTW would submit a complete application for approval of its waiver. EPA would have 60 days to approve or deny the application.

We foresee serious problems implementing a waiver, even under the more carefully drafted provisions of S. 431. The waiver is premised on the notion that questions about eligibility can be resolved quickly, freeing qualifying POTWs to proceed with their local programs and keeping disruption of the remainder of the program to a minimum. But any number of events could disrupt this carefully constructed scenario. For example, if EPA failed to promulgate the initial guidelines on time, POTWs would not be able to develop their applications and the entire program would be thrown into confusion. This concern is not unfounded since EPA's track record of adhering to statutory deadlines leaves much to be desired.

Even if EPA met its initial deadlines, an aggrieved party could still challenge EPA's guidelines in court, creating uncertainty about program requirements. If a court subsequently agreed with the litigant, the program could be significantly disrupted years after enactment of the Clean Water Act Amendments of 1983 or 1984.

The problems do not end there. What if EPA and the POTW disagree on whether a local program qualifies for a stay of enforcement? During the years it takes for litigation to unfold, what obligations does the industrial user meet -- the federal or local standard? The two standards may have different but nonetheless significant financial implications for the industrial user. If local numbers are less stringent, many industrial users may decide to cast their lot with the POTW, taking their chances on the outcome of any lawsuit. The job of enforcing the federal standards would then be considerably complicated.

The same problems arise if EPA decides to deny the final application for program approval or to establish conditions on a grant of approval which may be unacceptable to the POTW. Indeed, the short time allowed for review and approval of a POTW's application leaves EPA and local government with little room to resolve their differences.

In short, we question whether a waiver provision is workable. Enactment of a waiver may only postpone the day when adequate pretreatment standards are in place in the majority of POTWs with significant industrial influent.

A second and related concern is whether waivers will provide the same level of protection against toxics as the national program. The waiver will be of little use to POTWs with numbers more stringent than the national categorical pretreatment standards. Section 510 of the Clean Water Act already protects those numbers from changes merely because EPA promulgates less

stringent pretreatment standards. Instead, it is the POTWs with the more relaxed standards which will be pressured by industrial users to obtain a waiver from the federal program.

A POTW facing this pressure need only show that it complies with secondary treatment requirements and that it has an approved local pretreatment program in order to qualify for the two year stay of enforcement. No one knows precisely how many POTWs can meet this test, but the number is potentially large. Over 1,400 POTWs have installed secondary treatment -- more than half of the plants that are required to develop a pretreatment program.* A much smaller number -- less than 10% -- have received EPA program approval. But well over 15% have completed their applications and are awaiting EPA action. An even greater number have taken at least some of the steps needed to complete their application. In fact, an EPA consultant concluded that 79% of the POTWs with a flow greater than 5 mgd have made "substantial progress" toward obtaining program approval, and another 45% of the smaller POTWs required to develop a local program have made similar progress. That analysis was completed over one year ago. The deadline for program approval is July of this year. If EPA continues to work with local municipalities, many POTWs will

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* Many of these POTWs may not qualify for a waiver because they are still not meeting their NPDES permit limits. Seventy percent of POTWs violate their permits, half more than 10% of the time. Many of these plants have become obsolete or overloaded. Others experience recurring operation and maintenance problems; over seventy percent of the plants in this category attribute at least some part of the problem to industrial influent. Thus, the task of sorting out which POTWs actually comply with §301 of the law will not be an easy one.

be in a position to obtain program approval by the July 1983 deadline or at least by enactment of the Clean Water Act Amendments of 1983 or 1984.

These POTWs will then face a considerable task developing the local program requirements necessary to obtain a waiver from the federal program. They will have to develop water quality standards, often from scratch, to assure that toxics are not simply passing through the POTW in dangerous amounts. The states have done little to assist them in this effort in the decade since the Clean Water Act was passed. For example, lead, cyanide, and cadmium are the most heavily regulated pollutants in waterways, but only 16 states have issued water quality standards for them. Other pollutants are less frequently addressed; only six states have water quality standards for silver. Thus, eligible POTWs will generally have to rely upon site-specific numbers developed especially for the waiver application

The task of determing what constitutes a "safe" method of sludge disposal will not be easier. The cities most likely to be interested in an "opt-out", those with many industrial users, are also those most likely to have a sludge contamination problem. The exact magnitude of this problem is difficult to estimate since as many as 30% of the POTWs may not have even sampled their sludge. But in one EPA study of 40 well-operated POTWs, 24 priority pollutants were detected in more than 50% of the sludge samples. Some -- such as copper, lead, silver, and zinc, -- appeared in all sludge samples. The concentration range of these

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pollutants was considerable; toxics reached concentrations as high as nine million ug/l.

Federal benchmarks to guide the disposal of contaminated sludge are virtually nonexistent. EPA has developed regulations for cadmium and PCBs applied to land, especially on food-producing crops. An EPA study concedes that at least seven other metals as well as toxic organics can be considered "contaminants of concern" in land application of sludge. But the guideline-setting process for these pollutants has not yet been initiated. Nor is EPA any further along in developing guidelines for distribution and marketing of sludge, even though such practices go on uncontrolled in almost all states. So POTWs will have to sample their sludge, identify the toxics of concern, determine what adverse effects to anticipate from these pollutants, establish concentration limits which protect against these effects, and determine whether different methods of disposal alter their concentration limits.

As you can see, much of the information necessary to determine the adequacy of a local program will have to be developed on a case-by-case basis for the waiver application. We doubt that POTWs have the resources to generate adequate data within the short time frame contemplated by the waiver bills. And, even more important, EPA lacks the ability to review and approve these applications within 60 days.

Lengthening the review process will only extend the period of uncertainty and program disruption generated by the existence

of a waiver. But pressing local governments, states, and EPA to do the job within an unrealistic time frame means that the review process is likely to degenerate into a paper-pushing exercise, offering only the illusion of control.

Finally, the resources needed to administer a waiver program would be substantial. An internal EPA analysis concluded that $13.5 million would be needed in FY 84 and another $13.5 million in FY 85 to process waivers if 600 POTWs applied. If the initial screening test is relaxed, then even more POTWs could apply for waivers, and the cost of processing applications would increase accordingly.

This is a high price to pay for flexibility, particularly when EPA has yet to develop long overdue categorical pretreatment standards and sludge disposal regulations. We urge the Committee to direct EPA to put its resources into programs which will protect public health and the environment, rather than into a waiver program which may well undermine the adequacy of pretreatment efforts nationwide.

TABLE 4

SUMMARY OF ADVERSE EFFECTS OF SELECTED TOXIC POLLUTANTS IN POTW EFFLUENT

Chemical	Carcinogenicity	Mutagenicity	Teratogenicity	Other Reproductive Toxicity	Neurotoxicity	Toxicity to Other Organ Systems
Arsenic	+	+	+	+	+	+ skin
Benzene	+	+	+	+	+	+ blood
DEHP		+	+	+		
Cadmium	+	+	+	+		+ lung, kidney, (liver)
Carbon Tetrachloride	+	+		+	+	+ liver, kidney, eye
Chloroform	+		+	+	+	+ liver, kidney, skin, heart, blood
2-Chlorophenol	+					
Chromium	+	+	+			+ skin, kidney, liver, respiratory tract
Dibutyl Phthalate			+	+		+ blood
2,4-Dichlorophenol	+	+				+ liver
Lead	+	+	+	+	+	+ kidney, blood
Mercury	+	+	+	+	+	+ kidney
Methylene Chloride			+		+	+ liver, kidney cardiovascular system
Nickel	+	+		+		+ liver, skin
Phenol	+			+	+	+ liver, kidney
Tetrachloroethylene	+	+	+	+	+	+ liver, kidney

Chemical	Carcino-genicity	Muta-genicity	Terato-genicity	Other Reproductive Toxicity	Neuro-toxicity	Toxicity to Other Organ Systems
1,1,1-Trichloro-ethane		+				+ liver, kidney, cardiovascular system
1,1,2-Trichloro-ethane	+				+	+ liver, kidney, lung
Trichloro-ethylene	+	+			+	+ liver, skin, kidney
2,4,6-Trichloro-phenol	+	+	---			
Vinyl Chloride	+	+	+		+	+ liver, kidney

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STATEMENT OF THE

SYNTHETIC ORGANIC CHEMICAL

MANUFACTURERS ASSOCIATION

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE SENATE COMMITTEE ON

ENVIRONMENT AND PUBLIC WORKS

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STATEMENT OF THE

SYNTHETIC ORGANIC CHEMICAL
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ENVIRONMENT AND PUBLIC WORKS

April 14, 1983

The Synthetic Organic Chemical Manufacturers Association ("SOCMA") is a nonprofit association of producers of organic chemicals. A membership list is attached. Many of SOCMA's 100 members are small chemical companies.

The regulatory approach to pretreatment of industrial wastewater by users of publicly owned treatment works is an issue of great importance to SOCMA's members. A large number of its members operate one or more plants which are tied to a POTW. In many cases, these plants are located in areas in which there is no reasonable alternative to the use of a POTW's services.

SOCMA's Concerns with the Present Pretreatment Strategy

In testimony before this Subcommittee in the 97th Congress, SOCMA expressed its concern that the present pretreatment strategy, founded as it is on national categorical pretreatment standards, had not led toward measurable advancement of the goals of the Clean Water Act. Since SOCMA's

appearance last year, EPA has made progress in developing national categorical pretreatment standards. However, many standards, including those for the organic chemical and plastic and synthetic materials industry, have not been completed. And substantial issues remain due to the diverse and complex nature of industrial users of POTWs, to the difficult technical questions relating to the treatability of particular wastewaters by POTWs and by alternative pretreatment technologies, to the difficulty in resolving important questions of POTW sludge use and disposal, and to the economic impact of those regulations, particularly on smaller companies. Further, the provisions of the general pretreatment regulations for application of the categorical standards to particular POTWs and industrial users are excessively complicated to the point that they are, in SOCMA's view, unlikely to be a workable tool for providing needed flexibility in the national standards.

Perhaps the most important point made by SOCMA was that many municipalities already have developed effective local pretreatment programs. SOCMA believes that such programs have substantially implemented the objectives of the Clean Water Act in that they protect POTW operations, ensure compliance with POTW NPDES permit limitations, ensure safe sludge disposal, and allow cost-effective treatment of both industrial and municipal waste.

Alternative Local Pretreatment Systems as an Option to National Standards

SOCMA continues to believe that the present pretreatment strategy, with its reliance on national categorical pretreatment standards, will not be the most effective approach in advancing the goals of the Act. However, SOCMA recognizes that others have strongly objected to the total elimination of the national categorical pretreatment standards and the pretreatment strategy based on these standards.

Given the diverse views presented during last year's debate, SOCMA accepts the fact that the discussion must shift from continuation of the national standards to the development of an option to the application of these standards to industrial users of individual POTWs. The proposal in S. 431 for "alternative local pretreatment systems" represents a constructive effort in that direction. The concept provides a framework from which an environmentally effective and workable pretreatment strategy might be developed.

SOCMA believes that a program for alternative local pretreatment systems should be founded on the following basic principles:

First, alternative local pretreatment systems should be considered the preferred option for implementing the Clean Water Act with respect to industrial users of POTWs. The Congress, in amending the statute, and EPA and the states, in implementing such new provisions, should encourage POTWs to

develop alternative local pretreatment systems. Unnecessary statutory and regulatory impediments to the development and adoption of local systems should be avoided.

Second, an alternative local pretreatment system should ensure that industrial wastes do not preclude POTW compliance with NPDES permit effluent limitations implementing secondary treatment requirements pursuant to Section 301(b)(1)(B) or implementing state water quality standards pursuant to Section 301(b)(1)(C).

Third, an alternative local pretreatment system should ensure that industrial wastes do not preclude the sludge use or disposal system option chosen by the POTW consistent with applicable regulatory requirements, including guidelines under Section 405.

Fourth, the POTW and the permitting agency should be according flexibility in the type and mix of pretreatment requirements for industrial users of the POTW so long as the two foregoing basic requirements are met.

Fifth, an opportunity for public participation in the development of an alternative local pretreatment system should be accorded and, in particular, industrial users of the POTW should be encouraged to participate.

Elements of a Program for Establishing
Alternative Local Pretreatment Systems

SOCMA believes that the elements of a workable and acceptable pretreatment program can be derived from these principles. The elements of SOCMA's approach differ in some respects from those presented by S. 431.

Modification of POTW NPDES permits, as provided in S. 431, is the appropriate procedural approach for implementation of a program for alternative local pretreatment systems since NPDES permits are the prime mechanism implementing the Clean Water Act. The Federal or NPDES state procedures and public participation requirements applicable to general issuance and modification of other NPDES permits should be followed for modifications of POTW permits to incorporate alternative local pretreatment systems.

SOCMA is concerned about the layer of procedures, in addition to the NPDES procedures, which would be imposed upon POTWs by the requirements in S. 431 for a letter of intent with interim steps and schedules for submission by the POTW of an application for permit modification. If additional requirements for modification of NPDES permits are to be imposed upon POTWs, they should not include substantive requirements which unnecessarily preclude POTW applications or paperwork requirements which inhibit POTW applications. The substantive requirements of S. 431 that, at the time of submission of a letter of intent, the POTW be in compliance with all applicable

effluent standards and have an approved pretreatment program would disqualify POTWs which otherwise might develop wholly sound alternative systems. The procedural requirements in S. 431 for a detailed schedule by which the POTW will submit an application for a modification imposes a resource and paperwork demand for which SOCMA sees no adequate reason. Any pre-application procedure should be as straight forward as is possible, and stays of the categorical standards based upon POTW letters of intent should be granted except in the most unusual circumstances.

In acting upon a POTW application for a permit modification to adopt an alternative local pretreatment system, the permitting agency should update the POTW's permit by revising the effluent limitations in the permit to reflect the current requirements for secondary treatment and state water quality standards. The basis for the permit (and for the pretreatment system) should be the water quality standards in effect at the time the permit is issued. Compliance schedules, as necessary and appropriate, should be included to achieve such requirements.

The POTW should be required to submit the following as part of its application:

* Identification of pollutants which are or are expected to be covered by categorical pretreatment standards and which, on the basis of findings from an adequate monitoring

program, are present in POTW effluent or sludge in sufficiently significant concentrations or quantities to merit consideration for regulation in the POTW permit and/or pursuant to the alternative local pretreatment system.

* Identification of and information on industrial users covered by proposed or promulgated national categorical pretreatment standards.

* Identification of and information on other industrial and non-industrial sources of significant quantities of pollutants which may be subject to regulation under the alternative local pretreatment system.

* A plan for the regulation of industrial users and for the reduction of pollutant loadings from non-industrial sources.

* A plan for monitoring and enforcement of requirements for industrial users.

* A description of legal authority for implementation and enforcement of the alternative pretreatment system.

* A description of the resources required to implement and enforce such a plan.

The POTW also should be required either to have an approved pretreatment program pursuant to Section 402(b)(8) or to have submitted such a program for approval with its application. As noted above, the POTW should not be required to have an approved program at any pre-application stage.

S. 431, by its terms, gives the NPDES permitting agency the discretion to approve or deny a POTW's application. In SOCMA's view, the NPDES permitting authority should be required to approve the POTW's application unless it finds that --

(1) the plan for regulation of industrial users and non-industrial sources is inadequate to

(a) ensure that industrial wastes do not preclude POTW compliance with NPDES permit effluent limitations implementing current secondary treatment requirements or implementing existing state water quality standards or

(b) ensure that industrial wastes do not preclude the sludge use or disposal system option chosen by the POTW consistent with applicable regulatory requirements; or

(2) the plan for monitoring and enforcement of requirements for industrial users is inadequate to ensure compliance with such requirements; or

(3) the POTW lacks the legal authority or resources to implement and enforce the alternative local pretreatment system.

Reasonable deadlines should be established for compliance with requirements of alternative local pretreatment systems or with categorical pretreatment standards for industrial users of POTWs which have not adopted alternative pretreatment systems. As drafted, S. 431 seems to require that

pretreatment regulations in an alternative local pretreatment system be met upon approval of the system by the NPDES permitting agency. S. 431 also provides that the requirements of a categorical pretreatment standard must be complied with within the deadline established by that regulation even though little or no time is left should a POTW application be withdrawn or disapproved toward the end of the stay authorized by S. 431. Consistent with the requirements of existing law, industrial users should be allowed up to three years to comply with either local requirements or national standards after such time it is determined that such requirements are applicable. In addition, as suggested by Senator Randolph in introducing S. 432, a mechanism must be provided for the application of pretreatment standards to plants subject to different regulations promulgated at different times.

The alternative local pretreatment system should be reviewed and revised as necessary --

(1) in connection with renewal of the POTW's NPDES permit or

(2) if it is determined that a POTW is not in compliance with its NPDES permit or sludge use or disposal requirements and industrial wastes may be a significant cause of such non-compliance.

In addition to implementing the foregoing elements of a new program, EPA should review and revise its NPDES and general pretreatment regulations to ensure that unnecessary detail, procedures, and paperwork do not discourage POTWs from developing alternative local pretreatment systems. Further, EPA should assist POTWs in developing alternative systems by evaluating and publishing information on existing POTW pretreatment programs.

SOCMA MEMBERSHIP

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TEXAS DEPARTMENT OF WATER RESOURCES
1700 N. Congress Avenue
Austin, Texas

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March 24, 1983

The Honorable John A. Chafee
Chairman, Subcommittee on Environmental Pollution
Committee on Environment and Public Works
United States Senate
Room SD-410
Washington, D.C. 20510

Dear Senator Chafee:

We have received information that the Subcommittee on Environmental Pollution will be conducting a series of hearings in order to receive testimony on amendments to the Clean Water Act proposed by S. 431 on April 6, 7, and 14. Since we will be unable to attend the hearings we would like to submit to the Subcommittee our comments on S. 431 for their consideration in considering changes to the Act. Our comments on S. 431 are as follows:

Section 1. No comment;

Section 2. Authorization. We strongly support these authorizations especially the continued authorization under Section 106. Continued stable funding under Section 106 at a consistent level is critical to an effective water quality management program. Most states' basic water quality management programs are funded under 106; this includes permitting, enforcement, and other water quality management activities.

Section 3. Chesapeake and Narragansett Bays. No comment;

Section 4. Compliance Dates. We would recommend that a single compliance date, such as July 1, 1987, be used in that it is more practical from the standpoint of preparing and issuing permits and improving treatment works to have a single date for compliance with BAT, BCT, and non-conventional pollutants so that permits containing all three sets of requirements do not have to be modified several times;

Section 5. Ocean Waiver. No comment;

Section 6. Water Quality Standards. We do not see any substantial value in adding the proposed language "maintaining as a minimum use the designated use existing on January 1, 1983" to the Water Quality Standards section of the Act. This statement, as written, would allow for no room for a state to recommend stream standards and use changes on a case-by-case basis. We feel that it may become necessary to make changes which more appropriately and realistically reflect the stream uses after allowing for the development of background data and information to justify a needed change while still complying with the declared goals and policies of the Act. The Congress has always supported the delegation of water quality programs to the states and recognized the need for flexibility in the state programs to allow for the achievement of the goals of the Clean Water Act and it is our opinion that if this proposed amendment is adopted as written it would be a step backward in recognizing the states' ability to deal with their water quality programs. We suggest that the present language in Section 303 of the Act has withstood the test of time and that there is no need for amendment;

Section 7. Pretreatment. We feel that the proposed amendment to the pretreatment program offers the opportunity for active local government involvement in the control of materials received by publicly owned treatment works. Although we applaud the effort to promote maximum local involvement, it appears that the proposed amendment may require additional regulations which would be complicated and require substantial additional manpower for review and coordination and we suggest that the Subcommittee take under consideration any suggestions to help alleviate this potential problem;

Section 8. Civil Penalty. While the increase in civil penalties may serve as an additional deterrent to violations and serve to improve the negotiating position of EPA and/or states in settlement discussions, we feel that the present $10,000 per day penalty is sufficient. In addition, if this proposed amendment is passed, it would require the states which have been delegated the permit program, or those state's which may be delegated the permit program, to adopt the proposed increase in penalties. In Texas's specific case, our State Legislature meets every two years which would mean that it would not be until 1985 that our Legislature could consider increasing the civil penalties if the amendment is adopted as proposed. This would further delay the Texas' efforts to receive delegation of the NPDES program;

Section 9. Partial NPDES Program Approval. We strongly support this amendment as proposed in that we feel that partial approval of the NPDES program is essential to allowing more states to assume a greater

responsibility in the overall water pollution control program without any adverse effects to the existing program;

Section 10. Award of Fees. No comment;

Section 11. Reports to Congress. No comment.

We appreciate the opportunity to submit our comments on the proposed amendment to the Clean Water Act as included in S. 431 and if there are any questions or if we can be of any assistance during your deliberations, please do not hesitate to call on us.

Sincerely yours,

Charles E. Nemir
Executive Director

RICHARD C. HACKETT
MAYOR

CITY of MEMPHIS

DIVISION OF
PUBLIC WORKS

DIRECTOR'S OFFICE
Room 802
901-528-2742

February 28, 1983

Ms. Josephine S. Cooper
Professional Staff Member
United States Senate
Committee on Environment and
Public Works
Washington, D.C. 20510

Dear Jo:

We have reviewed the copy of the Clean Water Act Amendments introduced February 3, 1983, by Senator Chafee and wish to submit the following comments concerning the effect of this bill on the City of Memphis and other cities across the nation.

Section 301(b)(2)(c), dealing with the compliance schedules for best available treatment standards are effectively extending the deadlines for compliance with these standards for industries. As such, this would provide the City of Memphis with the mechanism required to extend the current permit variances past the deadline of July 1, 1984, to the new deadline date of about January 1, 1986.

The only exception would be the case whereby any applicable industrial BAT limits are established before July 1, 1983, in which case our permits could be modified or adjusted within three (3) years after the establishment of such limits.

Section 301(h)(5) - Ocean Waiver, results in only slightly stronger restrictions than exist in the current law.

It was my understanding this was the section where an attempt was to be made to restrict disposal of sludge in marine waters, however, I don't believe the language as such really addresses the problem.

Section 303(c)(2) and 303(c)(4), dealing with water quality standards are not, in our opinion, in the best interest of the City of Memphis. These amendments would make it more difficult to modify permit limits in order to take advantage of special circumstances that mandate a common sense approach.

The amendment to Section 303(3)(4) could be modified to serve our interest and those of other cities across the nation by deleting "enhance" and substituting in its place "have no measurable detrimental effect on". This would allow a permit to be modified as long as it had no measurable detrimental effect on the quality of water. As such, since the average TSS concentrations of the Mississippi River is about 150 mg/l, then conceivably the treated waste discharges of the City of Memphis, and other cities across the nation, could contain TSS concentrations approaching, but not exceeding, 150 mg/l.

The City's effluent BOD concentrations would be allowed to rise to a level which is just less than that, which would result in no measurable increase in the instream BOD.

This adjustment would actually only provide the avenue for justifiable modifications.

In our opinion, this adjustment should, therefore, be augmented with much stronger language in some part of the act that puts the dischargers of treated wastewater into major inland waterways on an equal footing with those that discharge pollutants into marine waters, as long as water quality is not adversely effected.

Section 304(g), dealing with pretreatment and in particular with alternative pretreatment systems, appears to be a very well thought out compromise that could appeal to both proponents and opponents of categorical pretreatment standards. This proposal will make it more difficult for POTWs to acquire removal credit for the various pollutants that would have been required under earlier "credit systems". However, we do not disagree with the stipulations contained in this new proposal because they will assure that the integrity of the overall pretreatment system could be protected.

The one fault we find in this proposed amendment would be that a POTW must submit a letter of intent with supporting documentation to the Administrator within 120 days after the date of enactment of the Clean Water Act Amendments of 1983.

In order to submit this letter of intent, one of the stipulations is the POTW must be in compliance with applicable effluent limitations. Therefore, as this amendment presently reads, if a POTW was not in compliance during this 120 day period, it could not submit a letter of intent either at this time or at any time in the future to establish an alternative local pretreatment system.

I feel this is not the intent of the language, however, that is the basic effect.

The proposal contains language that allows the POTW supplemental applications to deal with categorical pretreatment standards that will be an issue in the future. We would suggest that the language of this section be expanded to also allow supplemental application of POTWs in compliance with effluent standards, but for one reason or another, who are not in compliance at the time the original letter of intent is required.

These changes would not, in our opinion, benefit the City of Memphis; however, they could be extremely important to cities where treatment plants are in the process of being expanded.

Section 309(d), provides for Civil Penalty increase in fines from $10,000 to $25,000 for unwillful violations.

The City has no problems with the proposed increase, but it conflicts with the present allowable fine for willful violations.

The Clean Water Act as it now reads, allows a maximum $25,000 per day fine for willful violations. If the limit is raised on unwillful violations, we would suggest a similar increase be considered for willful violations.

Section 402(b), which deals with partial NPDES program approval for States, would allow some States which do not have the present manpower necessary to assume the total NPDES program the opportunity to assume as much as existing manpower would allow.

This we feel will be highly beneficial as States could go through a transition period whereby they could phase into a total program.

Section 509(b) and Section 516. We feel Section 509(b) and Section 516 are very appropriate and would propose no modifications to the proposed language.

We earlier proposed amendments to Section 301(h) in order to allow increased discharges into major receiving streams.

The language as we suggested is "the administrator, with the concurrence of the State, may issue a waiver of secondary treatment requirements for publicly owned treatment works discharging into major inland waterways provided that the capacity of the receiving stream is sufficient to assimilate the increased discharge without adversely effecting water quality".

The Section could be amended by simply including after the words "Marine Water", the words "Major Inland Waterways" to Section 301(h).

There are many cities, Memphis being only one, being required to treat their waste to secondary standards and discharging into streams similar to the Mississippi River when limits much greater than secondary could achieve the same effects on improved water quality.

This wasted treatment necessitates the useless spending of the taxpayers money on increased utility costs, chemical costs, sludge disposal costs, and capital costs for plant expansions and modifications.

Many cities located on large inland waterways would find it less detrimental to the environment to increase their wastewater discharge to the River and thereby reduce the amount of sludge they are now disposing of in sometimes environmentally questionable manners.

We have not conducted studies on all the cities, however, if the City of Memphis increased its discharge to the River by raising its effluent concentrations to 100 mg/l BOD and 100 mg/l of Suspended Solids, the twenty (20) years savings to the taxpayers of the City of Memphis would be approximately 250 Million Dollars. In addition, another 90 Million Dollars could be saved in Capital and Financing costs associated with planned expansion and the need for additional sludge dewatering facilities.

Across the nation, there are over 100 cities in 18 States that would be effected if the Clean Water Act allowed for increased discharges into major inland waterways.

Assuming the savings to these cities would be proportionate to the savings in Memphis, based on population, the equivalence, the net savings to the taxpayers across the nation would be approximately 3-1/2 Billion Dollars.

This is a savings which could be achieved without having any adverse effect on the water quality of the receiving streams.

I am certain you are aware the City of Memphis has been conducting a study on the assimilative capacity of the Mississippi River. Working with us on this project have been Memphis State University and the Tennessee Department of Public Health. The study program was submitted to the Environmental Protection Agency for their review and modifications prior to undertaking.

There is no question categorical standards as established by the Environmental Protection Agency some ten years ago for all POTWs have had their effect, however, much knowledge has been gained and it is time to take that knowledge and place it into effect and modify the system to require different levels of treatment based upon local conditions.

In our opinion, there is no justification for requiring the same level of treatment for a city discharging into marine water or a major inland waterway, such as the Mississippi River, as would be required for a POTW discharging into a mountain stream.

We have not attempted to determine potential savings in construction costs which would convert to a reduction in funds to be provided by our government for that construction.

Based upon the latest information we have seen, in excess of 92 Billion Dollars will be needed to provide funds for construction of sewage treatment plants and sewers to meet the needs of existing population. We would estimate a minimum of 10 percent of this amount could be deleted from the budget if a common sense approach was taken to treatment requirements.

Thank you for the opportunity to review the Clean Water Act and make our comments. Should you have any questions, please do not hesitate to contact me.

Yours Truly,

Maynard C. Stiles
Director of Public Works

MCS/sw

cc: Senator Howard Baker
Senator Jim Sasser
Congressman Harold Ford
Congressman Ed Jones
Congressman Don Sundquist

COUNTY SANITATION DISTRICTS
OF ORANGE COUNTY, CALIFORNIA

TELEPHONES:
AREA CODE 714
540-2910
962-2411

P. O. BOX 8127, FOUNTAIN VALLEY, CALIFORNIA 92708
10844 ELLIS AVENUE (EUCLID OFF-RAMP, SAN DIEGO FREEWAY)

April 13, 1983

Honorable John H. Chafee
Chairman
Subcommittee on Environmental
Pollution
Committee on Environment and
Public Works
U. S. Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Enclosed for your information is a statement on behalf of the County Sanitation Districts of Orange County, California, urging that the Clean Water Act be amended to authorize a research program to study the effects of disposing of sewage sludge in the ocean.

We appreciate the heavy schedule that the Subcommittee has in considering the Clean Water Act amendments this year and, after discussion with Bill Corcoran, have concluded that it makes more sense for us to have the statement submitted for the record, and thus we have not requested an opportunity to appear personally at the Subcommittee's hearings. We trust that this will not jeopardize consideration by your Subcommittee of the suggestion made in the statement, which we believe to be fully supported by scientific and technical considerations.

Perhaps the most difficult and controversial assignment that local governmental agencies experience in cleaning up the waters of our nation is the handling of sludge. In many instances, the beneficial effects of sludge distribution in land-based options have been noted, and we submit that a comparable opportunity may well exist in the ocean under carefully controlled conditions and circumstances. The purpose of the proposed amendment to the Clean Water Act is to authorize the EPA Administrator to enter into a limited number of research programs through the issuance of research permits that would authorize the construction of a pipeline to the deep ocean with a carefully designed and scientifically acceptable monitoring

program to provide the missing data base that virtually all marine scientists recognize to be essential in evaluating the assimilative characteristics and capacity of the ocean.

We will be pleased to meet with you or your staff at any time to discuss the proposal in greater detail and can report that we have already developed excellent relationships with the National Oceanic and Atmospheric Administration and with the Environmental Protection Agency in terms of their understanding of the proposed research program and how it would be implemented.

We deem the concept to be sensible and reasonable, and we believe that, if permitted to do so, we can make a very real contribution to the nation's understanding of the ocean as an option for the management of sludge by coastal agencies.

My Board, comprised of forty locally-elected officials, believes it is desirable and essential to undertake this type of a study. It is prepared to make the financial investment necessary to do so.

We will be contacting Mr. Corcoran and other staff members, but wanted you to know personally of our proposal. We will be happy to provide any additional data or materials that may be required.

Sincerely yours,

Fred A. Harper

Fred A. Harper
General Manager

FAH/csd
cc: Members of the Subcommittee (w/encl.)
Mr. William Corcoran (w/encl.)
Mr. Philip Cummings (w/encl.)

AUTHORIZING OCEAN DISPOSAL OF SEWAGE SLUDGE UNDER THE CLEAN WATER ACT

Statement for the Record

of the

Committee on Environment and Public Works

U.S. Senate

Washington, D.C.

March 10, 1983

by the

County Sanitation Districts of Orange County, California

P.O. Box 8127

Fountain Valley, CA

Summary

Ocean disposal is one appropriate option for sewage sludge management which the National Academy of Sciences (NAS), National Advisory Committee on Oceans and Atmosphere (NACOA), and other groups have recommended should continue to be used contingent upon the sludge and local oceanographic conditions. Ocean disposal of sewage sludge from barges is permissible under the Marine Protection, Research and Sanctuaries Act, yet the Clean Water Act prohibits identical disposal operations from a shore-based pipeline. A strong case can be made for reconciling this statutory conflict, and we recommend that the Clean Water Act be amended to allow ocean discharge of sewage sludge, provided that it will cause no unreasonable degradation of the marine environment or endangerment of human health. A preliminary step that Congress could take is to authorize the Administrator of EPA to grant a limited number of five-year research permits to coastal publicly-owned treatment works (POTW's) for the purpose of determining under what circumstances, if any, pipeline disposal of sewage sludge can be allowed.

Over the past two years, the County Sanitation Districts of Orange County, California (CSDOC) and the National Oceanic and Atmospheric Administrtion (NOAA) have jointly funded a research planning study by scientists from the California Institute of Technology (CalTech) and other major marine science institutions in Southern California. Joint municipal-federal research efforts, such as the CalTech study, are an appropriate mechanism for focusing scientific effort on the major waste disposal problems facing many coastal municipalities, and the shared funding arrangement gives the municipality a greater role than it has traditionally played. Under a research permit provision, CSDOC would construct a new ocean outfall to far greater depths than has ever been built

before and would support an intensive, seven-year research effort (two years pre-construction and five years post-construction) intended to predict and monitor the impacts of such an outfall on the marine environment. If the marine monitoring program revealed unacceptable deleterious effects, the ocean discharge would be terminated immediately. In any event, while constructing and studying the pipeline discharge, CSDOC would continue its search for the best available land alternative for sludge disposal. The ultimate success or failure of the deep ocean discharge would be judged through a comprehensive multi-medium assessment which would demonstrate whether this alternative was preferable to others, including land-based, that may be available to Orange County. This assessment would take into account human health risks, environmental effects, process economics, and public perception of the alternatives.

I. Introduction

One of the most troublesome byproducts of our Nation's effort to clean up its waterways is sewage sludge. The major constituent of sewage sludge generated by POTW's is naturally occurring organic material. This organic material is removed from our wastewater effluent streams because the principal pollution problems in inland waters are caused by the biochemical oxygen demand of this material. Sludges also contain trace concentrations of synthetic organic compounds, heavy metals, and some petroleum-related hydrocarbons. These contaminants are often grouped together for the purposes of discussion and legislation under the heading of "toxics."

Recent estimates indicate total U.S. POTW sludge production is on the order of seven million metric tons per year.[1] The costs of sludge management by these POTW's varies from about $20 up to $500 per dry ton.[2] At $130/ton (EPA's "typical" figure), over $900 million per year is estimated to be spent in

operating costs nationwide. For many POTW's, sludge management represents over one-half of their operating budgets. Despite this economic burden, an ever-increasing number of POTW's are finding the costs of sludge management to be a relatively minor concern compared to the logistical and public acceptance aspects of sludge disposal. Spurred by the discovery of hundreds of unmanaged hazardous waste sites all over the country, public concern for groundwater contamination is making it exceedingly difficult to obtain new sites for land disposal of sludge or, in many cases, even to continue the use of existing sites, even though sewage sludge is not a hazardous waste.

In the early 1970's, public opinion called for a national policy to restrict or ban all ocean disposal of sludge. At present, we seem to be just as intent in our efforts to restrict or ban many forms of land disposal. In the 70's, EPA and the California Water Quality Control Board took the position that no sewage sludge could legally be disposed in the ocean, without regard to the human health or environmental consequences of the alternative disposal methods and without regard to the quality of the sludge or the assimilative capacity of the ocean. Quite clearly these attitudes were emotional and instinctive, rather than reasoned and scientifically based. Eighteen months ago, Judge Abraham Sofaer struck down EPA's arbitrary ocean disposal ban under the Marine Protection, Research and Sanctuaries Act (MPRSA) in City of New York v. EPA.[3]

In the past few years, NOAA, NAS, NACOA, and many prominent members of the marine science community have expressed the belief that the coastal oceans have the capacity to safely receive and disperse some of man's wastes, including sewage sludge, without unacceptable ecological effects: in other words, the oceans have an "assimilative capacity." We submit that the majority

of knowledgeable marine scientists would agree that the coastal oceans possess some finite capacity to accept wastes, particularly natural materials such as sewage sludge. The NACOA report, issued in 1981, underscores this weight of scientific opinion in its strongly-worded recommendation:[4]

> NACOA recommends that ocean disposal of sewage sludge either by barge or through properly designed outfalls should continue to be a disposal option under appropriate management conditions and with adequate monitoring safeguards in those areas where no unreasonable degradation of the environment results from sludge disposal. (emphasis added)

CSDOC believes that coastal POTW's are obliged to consider ocean disposal among the other options for sludge management, and we believe that there are several potentially acceptable options for ocean disposal of sewage sludge off the Southern California coast.

II, The Southern California Experience

From Point Conception to the Mexican border, a distance of about 250 miles, the largest anthropogenic (man-derived) input to the coastal Pacific Ocean is POTW effluent. In 1979, the five major POTW's in Southern California safely discharged more than one billion gallons of treated wastewater per day into the Pacific Ocean.[5]

In 1969 the five major POTW's in Southern California agreed to fund an ongoing series of environmental studies, designed to measure the effects of ocean disposal of sewage effluent and solids. That agreement produced the Southern California Coastal Water Research Project (SCCWRP), which since 1973 has been headed by oceanographer Willard Bascom. SCCWRP's budget has been augmented over the years with federal and state research grants and their research programs have received critical acclaim from their peers. To ensure

the objectivity of SCCWRP's reports, control of the project was turned over to a commission of local civic leaders and elected officials, all of whom are concerned with environmental quality. The scientific work carried out at SCCWRP is reviewed separately by an independent consulting board of prominent marine scientists. SCCWRP's work, and the other research that has been performed in the region, prompted the former EPA Assistant Administrator for Water, Thomas Jorling, to comment:[6]

> . . .[Southern California] is atypical for two reasons. First, it has been the subject of more research . . . than all the others around this country combined, multiplied by several hundred . . . The second . . . is that going into a California waste treatment system is like into a miclear submarine; while other waste treatment facilities are more akin to the ironclad Monitor . . .. Willard Bascom should feel proud of his work and so should all the communities that have been involved.

Willard Bascom recently published a paper in the peer-reviewed journal Environmental Science and Technology which briefly summarizes the decade of work carried out at SCCWRP. We have attached a copy of the full paper as an Appendix and respectfully request that this paper be printed as part of the record. We will highlight briefly the major conclusions reached by marine scientists in their studies of our 250-mile coastal "laboratory."

HEAVY METALS. Heavy metals are found in sewage, with about 90% associated with the particulate (solid) phase. About 10 to 12% of the metals remain in the vicinity of the discharge; the rest are carried away by the current. Of the portion which remains, the metals are so tightly bound to solid particles that they are practically unavailable to marine organisms.[7] Although there may be elevated levels of metals in marine invertebrates near outfalls, sewage-related metals are not found in any significant concentration

in fish muscle tissue (the part eaten by humans). There are some indications that high metal loads in enclosed bays or estuarine systems may result in elevated levels of these metals in invertebrates that could pose a potential hazard to humans, but this is not the case in the open coastal waters of Southern California.[8]

SYNTHETIC ORGANICS. DDT is thought to have been responsible for decimating the brown pelicans on the Channel Islands by adversely affecting their eggshells. Although a major industrial facility discharged DDT into the Los Angeles County sewerage system for years, the DDT discharge was stopped in 1970, and the amount of DDT reaching the Southern California bight through POTW discharges has been reduced to 3.5% of its 1971 value. In the same time period, the pelicans have returned to what are believed to be their normal population numbers. Another class of persistent synthetic organic compounds which is of environmental concern nationwide, polychlorinated biphenyls (PCB's), has dropped to 13.6% of its 1971 levels in California POTW discharges, even though there was no single source to eliminate, as in the case of DDT.[9] Concern in Southern California is focused on the long-term impacts of the existing deposits of DDT on the Palos Verdes shelf, rather than on current discharges of either DDT or PCB's. As far as both DDT and PCB's are concerned, at least in the open coastal waters of California, marine organisms that take up these compounds appear to be well-equipped to isolate the contaminants within their bodies in such a way as to prevent actual harm to themselves.

The five Southern California coastal POTW's face dramatic increases in sludge production as they put more secondary treatment facilities on-line. The three largest agencies, along with the U.S. EPA and the State of California, initiated an area-wide sludge management study in 1976, called the Los Angeles/ Orange County Metropolitan Area Sludge Management Program (or "LA/OMA Project"). The original objective of the LA/OMA Project was to evaluate all land-based options for sludge management, including landfilling, composting, solar drying (in desert areas), and thermal destruction. Because EPA policy, at that time, was that ocean disposal of sludge was illegal under both the MPRSA and the Clean Water Act, EPA would not allow federal dollars to be spent examining ocean options.

As the LA/OMA Project got underway, one of the most attractive land disposal options, from both an environmental and an economic perspective, appeared to be the "solar drying basin" option. In this scenario, sludge in its normal 3-to-5% slurry would be dumped over the mountains into desert valleys. Land would have been purchased, and the sludge would have been spread on the land to dry in the sun. After the moisture content reached an acceptable level, the dried sludge would have been mixed with non-productive soil to produce agricultural land. Unfortunately, by the time the LA/OMA Project reached the public hearing stage, the people who lived in those desert counties adopted the now-common "not-in-my-back-yard" syndrome, and county after county began passing "no sludge" ordinances.

The solar drying basin option was not the only one to bite the dust as the LA/OMA Project progressed to its conclusion in 1980. In the final LA/OMA report, it became apparent that the only land-based options available to the three POTW sponsors would be those that could be implemented on land already owned by the POTW's. By 1980, public opposition to any new sludge

facility siting became unusually intense in all of our service areas. Since the City of Los Angeles and Los Angeles County Sanitation Districts had land available on which to construct at least some kind of facility, the LA/OMA Project was able to develop practicable recommendations for them. However, CSDOC was using 20 acres of space at a county-operated landfill on private property. Therefore, we had to begin searching for a new site on which to build a composting facility, which appeared to be our best land-based option according to the LA/OMA report.

The final LA/OMA Report, adopted by both the U.S. EPA and the State of California as a final Environmental Impact Statement, was not able to make a recommendation for Orange County. We did not then, and we do not now, have an acceptable land site for composting. The third (and last) of a series of public meetings that we held on the subject brought out over 600 people, not one of whom favored our choice for a site. As a result of public pressure, our own County Board of Supervisors went on record in opposition to our plans to site a composting facility near their proposed new County landfill -- a siting decision made necessary because of the need to bury the composted sludge in a landfill. CSDOC is still in the process of trying to complete its portion of the LA/OMA Study, but we are now looking at less satisfactory methods (e.g., such as co-combustion with municipal solid waste, mechanical composting, and incineration) that could be implemented on land we already own.

III. The Ocean Options

Because of federal and state unwillingness to consider ocean disposal of sludge, the three POTW sponsors of LA/OMA contributed $75,000 to a study of ocean options that was incorporated into the final LA/OMA report. All the

sponsors recognized that the ocean option part of the LA/OMA project was clearly inadequate as the basis for a final recommendation, but, in light of the apparent mindset against ocean disposal, it would have been imprudent at the time to commit a larger amount of local public resources to this end.

There are two basic ocean disposal options: ocean "dumping" from a vessel under the MPRSA, and ocean "discharge" from a pipeline under the Clean Water Act. The former is currently allowed, following the New York City v. U.S. EPA decision, while the latter was expressly forbidden by this Congress in Public Law No. 97-117, overturning the D.C. Court of Appeals' decision in NRDC v. EPA, 656 F.2d 768 (1981).

Regardless of whether sludge is barge-disposed or piped offshore, one important feature of our submarine coastal topography is the presence of very deep water in a series of submarine basins just offshore. Scientists believe that biological activity in the deep basins (1,500 to 2,000 feet deep) is only a tiny fraction of what it is on the continental shelf, where all of the existing six discharges are located. Therefore, two research efforts were undertaken with the POTWs' $75,000 contribution to LA/OMA: (1) a survey of biological conditions in two of the deep basins was prepared by SCCWRP,[10] and (2) the Environmental Quality Lab at California Institute of Technology (CalTech) did some preliminary mathematical modeling to predict the fate of sewage sludge if it were to be placed into the deep ocean basins.[11]

The CalTech analysis concluded that the two best options for deep ocean disposal are: (1) sludge outfalls with discharge depths of about 1,000 feet (compared to the 300 foot depth of the Hyperion sludge outfall), and (2) barge disposal at either a fixed or a "roving" discharge location in deep water using a submerged pumped discharge between 150 and 300 feet below the surface

(to keep the discharged material below the thermocline, but still several hundreds of feet above the ocean floor). No reputable marine scientist, or sewerage agency for that matter, can say with certainty that deep ocean outfalls are the ultimate solution to our sludge problems. The scientific data base for the deep basins is limited even though they are less than ten miles offshore. One remarkable feature of the basins is that they are very low in oxygen; in fact the 260 square mile Santa Barbara Basin, the northernmost of 14 offshore basins, is essentially devoid of oxygen and has been for thousands of years.[12]

The LA/OMA "mini-study" of deep ocean alternatives has provided us with a hint of what might be one of the safest, least environmentally degrading options for sewage sludge disposal. We cannot now close our eyes, or our minds, to the deep ocean options.

IV. The Orange County Research Program

CSDOC has yet to find a site to complete the EIS process started eight years ago with the LA/OMA Project. We currently landfill about 65 dry tons of sludge per day, and, as more secondary treatment goes on-line and our service population grows, we expect this amount to increase to around 150 dry tons per day by the year 2000. Because public pressure appears to have taken away our opportunity for the "optimum" choices for land disposal, we deem it essential to make a thorough analysis of our ocean options. Clearly, an ocean disposal operation is possible and legal by barge, and we are actively considering that option. However, to be able to put sewage sludge at a particular spot in the ocean by barge (at a high operating cost, we might add), but not to be able to put exactly the same sludge in the same spot via pipeline is an anomalous situation at best. Thus, CSDOC has also been exploring the pipeline option.

In partnership with NOAA (which contributed two-thirds of the $85,000 cost), CSDOC sponsored a second phase of the CalTech study to define the research and monitoring that would be needed if a deep ocean sludge outfall were to be built off Southern California. The resulting research/monitoring plan was finished three months ago, and we have provided copies of that document to the Committee.[13] This research plan is briefly summarized as follows:

> Two years of pre-discharge studies and five years of post-discharge monitoring would be performed to determine the viability of the pipeline discharge as a disposal method. The total cost of this research effort has been estimated at $1.5 to 2 million per year for seven years.
>
> The study program has been divided into research groupings organized by tasks. The largest group in terms of effort and cost will be one that will seek to detect and document any effects from the discharge. This group will monitor water quality and benthic parameters near the outfall and at control stations both before and after the discharge begins. This information will be used as input to design of the discharge system and to calibration and refinement of predictive models.
>
> Also used as input to the modeling efforts and to the siting of the outfall will be a pre-discharge survey of the bathymetry and currents. This second group's results will be used additionally to design the sampling station network for the continuing studies.
>
> A third group will characterize the nature of the sludge: the quantity and quality of the discharge, the settling or flotation characteristics of the particles in seawater, the degradation of the particles during settling, and the release of contaminants to the water column. This study effort will be used in modeling exercises of the transport, fates, and effects of the sludge in the environment based upon both current sludge production technology and that predicted for the future.
>
> A series of conceptual and computer models predicting the transport and fates of the waste stream in the ocean comprise the next task group. These models will take the discharge plume from its entry into the ocean at the pipeline through the disposition of particles several months after their initial discharge.

Although preliminary modeling by Jackson et al.[14] suggests discharge by the currently proposed pipeline is the best experimental

design, a fifth group will, before and after construction, propose a refined location for the outfall and a mode of treatment for the sludge. This group will be considering current technology and costs for various options available in sludge treatment and pipeline engineering.

Group six and seven will explore biological impacts from the discharge, both in the laboratory and in situ. These studies will examine the direct and indirect impacts on the biota from the sewage sludge and its associated contaminants. They will also address the reverse: effects of the biota on the sludge particles and associated contaminants. Laboratory studies will be stressed in the early stages of this effort because of the large expense incurred in in situ deep water research, which is still in its infancy.

The last two groups will concentrate on tasks which are comparative, analytical, integrative, and interpretive in nature. One group will compare the CSDOC discharge with other similar discharges such as LA City's Hyperion outfall which has received extensive investigation. The other group will perform cross-disciplinary interpretation of modeling outputs, compare model predictions with monitoring results, and revise the research plan as information becomes available.

CSDOC is examining the concept that the experimental deep ocean pipeline discharge can ultimately be judged acceptable or unacceptable on the basis of a multi-media assessment of the feasible options. Comprehensive multi-media assessments can be expensive and time consuming since substantial data are required to describe environmental and human health effects, economics, and social perceptions of a range of waste management options. Fortunately, much of the information required for a multi-media assessment of Orange County sludge disposal already exists in a well-documented form as a result of the LA/OMA Project. The EIS resulting from the LA/OMA Project contains detailed evaluations of a wide range of sludge management alternatives and will form an excellent basis for a comprehensive multi-media assessment which includes the deep ocean pipeline discharge option. The experimental study developed by CalTech will provide most of the essential missing pieces for such an assessment. However, CSDOC will also undertake to continue its studies of land-based alternatives in order to fill data gaps with respect to these options also.

Already we have contracted with SCCWRP to obtain biological, physical, and chemical oceanic baseline data that will be absolutely necessary before any deep ocean sludge disposal option could be implemented. SCCWRP's field investigations began in 1981, at a cost of $165,000 per year which is borne solely by CSDOC.

If one were to be allowed by law how deep an outfall should be built, we cannot say with precision at this point, but we can reach the 1000-foot depth contour about 7-1/2 miles off our present facility. The pipeline would be relatively small (21 to 24 inches in diameter) and would cost between $15 and $20 million in 1982 dollars. CSDOC is prepared to bear the entire cost of building the pipeline, plus any associated sludge conditioning facility that would have to be built onshore. We are treating this effort as a research project, with a large potential savings to our rate-payers if it turns out to be a viable option. If the monitoring program shows deep ocean disposal to be environmentally unsatisfactory, all of the members of our Joint Board (consisting of 40 of the top elected officials in our service area of 1.8 million people) recognize that the pipeline would have to be shut down, and on-site land disposal alternatives implemented expeditiously.

V. Relationship to Other Municipalities

A word about the relationship of our proposal to the situations of other POTW's, particularly those in Southern California, is in order. A legitimate question is why this research could not be undertaken at the City of Los Angeles' existing sludge outfall. First, the Hyperion sludge outfall was built in the mid-1950's on the continental shelf in about 300 feet of water, for what were good reasons at the time. SCCWRP's studies show that the buoyant plume from the outfall does not reach the surface, but most of the organic matter does rise into the "photic" zone, which are the shallower waters where primary productivity takes place. This allows the organic matter to be beneficially utilized as food by marine organisms, thus producing large numbers of fish and other organisms. SCCWRP reported that the four largest

discharges support about 20,000 metric tons of extra benthic "standing stock."[15] This is readily acknowledged and demonstrated by the party-boat fishermen, who frequent the pipeline "reefs" for the demonstrably greater catches that are made there. However, there remains concern that, although there are beneficial effects of the POTW outfalls in increased biological production, these beneficial effects may be accompanied by more subtle adverse effects that some fear may be caused by pathogens, trace metals and synthetic organic sewage sludge.

The information gathered by SCCWRP and other scientists at the Hyperion outfall over more than the last decade is the basis on which we are suggesting that a move to deeper waters could produce improved results by isolating the sewage sludge from the photic zone. City of Los Angeles scientists themselves have proposed several modifications to the Hyperion sludge outfall, including the deep ocean proposal, as ways to reduce the outfall's adverse environmental effects. However, Los Angeles is party to a consent order with EPA and the state, under which it is progressing towards full implementation of land-based sludge disposal by mid-1985.

Other geographic regions that would be expected to benefit from deep-ocean outfall research conducted by CSDOC include most of the island POTW's (e.g., Hawaii and the western Pacific islands, Puerto Rico and the Virgin Islands). Also included in this list would be several Alaskan communities and a number of cities in southeast Florida, where the Gulf Stream and deep water are only a stone's throw offshore.

One benefit that could accrue from pipeline disposal of sewage sludge is the purely economic one that would flow to inland cities, and coastal cities where ocean disposal is not possible. If one or more coastal cities could

eventually turn to ocean disposal of all or some of their sludge, there will be that much less demand for scarce federal dollars under the Title II Construction Grants program. In addition, competition for the limited land and air capacity for sludge disposal would be reduced. Our colleagues in inland states would be as pleased as we if ocean disposal by pipeline is ultimately demonstrated to be an acceptable option.

VI. Legislative Action Necessary

Members of this Committee are aware of the arguments that were raised in 1977, and then again last year, to absolutely ban ocean disposal of sewage sludge. You are also well aware of the overwhelming scientific evidence, and the logic, that says an absolute ban on sludge disposal in any medium cannot be justified on either human health or environmental grounds. We have cited the statements of the National Academy of Sciences and the National Advisory Committee on Oceans and Atmosphere in their call for a balanced, multimedium approach to waste disposal.

In 1981, the D.C. Court of Appeals said that sludge discharges could be authorized under §301(h) of the Clean Water Act. In December of that year, your conferees reversed that decision legislatively. We do not see how it makes any difference what is discharged under §301(h), as long as the stringent criteria enacted in 1977 are met. We strongly believe that the ocean option must be kept open, for in some instances it might be the best option. We are pleased to see that it remains open under the MPRSA, and we urge the Committee to recommend amending the Clean Water Act to allow ocean disposal of sludge. Since so little is known about deep ocean disposal, the §301(h) criteria may be inappropriate for sewage sludge discharge permits. The more general "ocean discharge" criteria in §403(c) should apply to such permits.

We think that the §403(c) criteria are more relevant to the problem at hand, one reason being that they are practically identical to the ocean disposal criteria under §102 of the MPRSA. If a blanket sludge discharge provision cannot be enacted now, we respectfully request that language be adopted allowing five-year research permits under §405 of the Act under the §403(c) criteria.

We are willing to work with the Committee and its staff in developing language that would allow well-planned research efforts such as CSDOC's to continue so that the Nation can have the benefit of an analysis of ocean disposal of sludge based on sound technical and scientific procedures. A matter of this significance should be considered on the basis of rigorous scientific inquiry, not emotionalism.

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AMAX

JOHN H. PAUL
DIRECTOR
GOVERNMENTAL AFFAIRS

June 10, 1983

The Honorable John H. Chafee
Chairman, Environmental
Pollution Subcommittee
Senate Environment and Public
Works Committee
Washington, D.C. 20510

Dear Senator Chafee:

We would appreciate your including the following statement from AMAX Inc. in the hearing record on S. 431 and re-authorization of the Clean Water Act.

Our testimony statement includes specific amendments for your consideration as well as specific comments to S. 431.

Sincerely,

John H. Paul
Director
Governmental Affairs

JHP/jy

Enclosures

Statement of AMAX Inc.
on the Clean Water Act and S. 431
ENVIRONMENTAL POLLUTION SUBCOMMITTEE
SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

AMAX is a diversified minerals and energy development company with worldwide operations. The company explores for, mines, refines and sells molybdenum, coal, iron ore, copper, lead, zinc, petroleum, natural gas, potash, phosphates, nickel, tungsten, cobalt, gold, silver and magnesium.

We appreciate the opportunity to comment on the need to amend portions of the Clean Water Act and on specific portions of S. 431. AMAX Inc. operates western open-pit and underground mines as well as midwestern and eastern mines and refineries. As a result, we have a wide variety of experience throughout the U.S. with the application of the Clean Water Act.

In general, AMAX has found the Clean Water Act to be workable. However, we have found that the lack of flexibility in some areas has created unnecessarily high compliance costs with no commensurate environmental benefit. In our western operations, in particular, the location of our mines in high mountain, large snowpact areas, creates unique circumstances that the Clean Water Act does not accommodate. Flexibility in administering the Act is essential.

This testimony suggests specific amendments for your consideration, as well as specific comments to S. 431.

BAT COMPLIANCE

We endorse Section 4 of S. 431, the extension of compliance deadlines for technology based effluent limitations. While effluent limitations guidelines have been established for certain categories which cover a number of AMAX facilities, EPA has not yet promulgated categorical guidelines for many of our operations. Even for those guidelines expected to be proposed soon, such as for tungsten, we need the additional time to meet compliance requirements so we can determine and install equipment essential to meet appropriate limitations.

PRETREATMENT

AMAX supports Senator Chafee's efforts in drafting Section 7 of S. 431 which recognizes the need for flexibility in local pretreatment operations. However, unnecessary procedural limitations such as the various deadlines for applying for an alternative pretreatment system should be removed.

WATER QUALITY STANDARDS AND WATER QUALITY BASED EFFLUENT LIMITATIONS

AMAX believes nondegradation of existing uses is a worthy goal, and in most cases this goal should be reasonably achievable; we cannot, however, support Section 6 of S. 431, which locks in January 1983 designated stream uses, as it provides absolutely no flexibility for local response to local conditions.

The Importance of Water Quality Standards to AMAX

A number of AMAX's major western mining operations are located in high, mountainous, dense snowpack areas which experience unusually high runoff in the Spring, and extremely low flows at other times of the year. In these areas, due to past EPA pressure, the streams are generally subject to "high quality" use designations, and stringent numeric criteria have been adopted to protect these uses. As a consequence of these strict standards and the absence of dilution water during large parts of the year, most effluent limitations in AMAX's discharge permits are "water quality" based and AMAX has been asked to install "better than best" technology -- i.e. better than BAT -- at many of its western facilities. In some cases, we believe that these requests have been unreasonably stringent. However, due to constraints forced by EPA on the states, the states have been hard-pressed to respond to AMAX's concerns.

Problems with the Existing Act

During the states' first round of standard setting, many streams received "high quality" designations with little or no data regarding actual uses, and with little or no thought given to reasonable planning goals. As a result, many streams are subject to unreasonably stringent standards. Nonetheless, given the extremely stringent "downgrading" restrictions set forth in 40 CFR Section 35.1550(c)(3), the states have generally been unwilling to modify these designations. Furthermore, given the requirements of Section 301(b)(1)(C) of the Act, the states' ability to grant variances in permits is extremely limited.

A second problem is that some stream segments carry use designations that have been "attained" on a short-term basis, but that cannot be reasonably attained over the long term. For instance, many mine operations occur in older mining areas where runoff contains a high mineral content. Modern operators often collect and treat this runoff, thereby voluntarily cleaning up the affected streams through the use of innovative and expensive technology. This allows short-term uses of these streams that may not be maintainable over a long period of time if the mine

closes. In such cases, the inability to modify designated uses penalizes operators who have done the most to comply with the goals of the Act.

Problems with S. 431

S. 431 would exacerbate AMAX's problems by creating statutory restrictions on "downgrading" that are more onerous than 40 CFR Section 35.1550(c)(3). In our view, this would be extremely undesirable, notwithstanding our general support of nondegradation goals.

Recommended Solution

AMAX firmly believes that the regulations proposed by EPA on October 29, 1982 represent a reasonable solution to the problems outlined above, and that if responsibly implemented, unwarranted downgrading would not occur. However, we recognize that the proposals are controversial, and we offer the following suggestion as a possible compromise.

It may be useful, first, to review the current statutory scheme.

***

i) Section 303 (c) requires states to adopt water quality standards to protect stream use designations. These standards must be approved by EPA if they "meet the requirements" of the Act. In applying this vague standard EPA does not require states to evaluate the economic reasonableness of their rules. Whether they do so is a matter of state law.

ii) Upon the adoption of water quality standards, Section 301(b)(1)(C) requires dischargers to attain whatever effluent limitations are necessary to protect the standards, even if such limitations are more stringent than BAT. This requirement is absolute; the discharger cannot challenge its "reasonableness." Nor are dischargers given the right to reopen the question of the propriety of the standards.

iii) Section 302 of the Act, allows EPA to impose effluent limitations more stringent than BAT if necessary to protect "water supplies, agricultural and industrial uses, fish and wildlife and recreational activities..." However, before the limitations can be imposed, EPA must hold a hearing to consider economic and social impacts of such a requirement. Unfortunately, EPA interprets this section as only applying to EPA when setting "water quality related effluent limitations" and

not to the states nor to any permitting agency whose authority to set water quality related effluent limits is under Section 301(b)(1)(c).

Section 302 of the Act should be modified to provide that states, as well as the EPA Administrator, hold a hearing to consider the costs and benefits of effluent limitations necessary to meet water quality standards, if such limitations exceed BAT technology. Section 302 should also be changed to make it clear that the water quality sought to be achieved is that defined by the state water quality standards as set under Section 303.

To accomplish this goal we suggest the following language:

1. Amend Section 302(a) to read as follows:

> Whenever, in the judgment of the Administrator OR A STATE WATER POLLUTION CONTROL AGENCY, discharges of pollutants from a point source or group of point sources, with the application of effluent limitations required under section 301(b)(2) of this Act, would interfere with the attainment or maintenance of WATER QUALITY STANDARDS ADOPTED PURSUANT TO SECTION 303 OF THIS ACT,... effluent limitations (including alternative effluent control strategies) for such point source or sources shall be establisehd which can be reasonably expected to contribute to the attainment or maintenance of such water quality.*

2. Amend Section 302(b) to read as follows:

> (1) Prior to establishment of any effluent limitation pursuant to subsection (a) of this section, the Administrator OR THE STATE AGENCY PROPOSING TO ADOPT THE EFFLUENT LIMITATION shall issue notice of intent to establish such limitation and within ninety days of such notice hold a public hearing to determine the relationship of the economic and social costs of achieving any such limitation or limitations, including any economic or social dislocation in the affected community or communities, to the social and economic benefits to be obtained (including the attainment of the objective of this Act) and to determine whether or not such effluent limitations can be implemented with available technology or other alternative control strategies.
>
> (2) If a person affected by such limitation demonstrates at such hearing that (whether or not such technology or other alternative control strategies are available) there is no reasonable relationship between the economic and social costs and the benefits to be obtained (including attainment of the

objective of this Act), such limitation shall not become effective and the Administrator OR THE STATE AGENCY PROPOSING TO ADOPT THE EFFLUENT LIMITATION shall adjust such limitation as it applies to such person.

3. Amend Section 301(b)(1)(c) to read as follows:

(C) not later than July 1, 1977, any more stringent limitation, including those necessary to meet THE REQUIREMENTS OF SECTION 302, treatment standards, or schedule of compliance, established pursuant to any State law or regulations, (under authority preserved by section 510) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this Act.

STORM WATER RUNOFF/POINT SOURCE DEFINITION

Included in EPA's definition of "point source" (Sec. 502(14)) are devices which gather and collect or otherwise divert storm water runoff and snowmelt. This potentially subjects all storm water collection systems to the NPDES permit process regardless of the storm waters contamination level or the source of the contamination of the runoff. Many mining operations voluntarily collect runoff around their mine sites to keep such water from coming in contact with process water. To require them to meet permit requirements seems unreasonable given the voluntary nature of the installment of the collection devices which, in and of themselves, prevent or minimize pollution.

We recommend that Sec. 502(14) be amended to exclude storm water runoff devices from the point source definition in those cases where the runoff is neither contaminated nor contains hazardous substances in harmful quantities. The following language is suggested.

> The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which pollutants are or may be discharged. The term does not include return flows from irrigated agriculture or storm water runoff. As used herein, "stormwater runoff" means discharges from conveyances or systems of conveyances (including pipes, conduits, ditches, and channels) primarily used for collecting and conveying precipitation runoff and

which are not contaminated with process wastes, raw materials, toxic pollutants in excess of toxic pollutant effluent standards or prohibitions, established pursuant to Sec. 307, hazardous substances in reportable quantities, or oil and grease.

NAVIGABLE WATER DEFINITION

While AMAX acknowledges the Committee Chairman's desires to address the navigable waters, 404, wetlands question separately, we are offering two very specific limiting amendments to the definition of navigable waters and wetlands which reflect our concerns with Sec. 404. We believe the area warrants the Congress' attention at some point in time.

EPA has defined the term "navigable waters" broadly to include streambeds that have water in them only intermittently as a result of rain or snowmelt; do not support fish, shellfish or wildlife; do not provide water to downstream users; and do not flow into other bodies of water.

Due to this broad definition, sources of effluent which do not harm surface waters or adversely affect the water quality of other water bodies must still bear the huge financial burden of compliance with effluent limitation regulations.

We suggest language that would limit the definition of "navigable waters" as follows:

> For purposes of this act, the term "navigable waters" shall exclude waters that do not support a diversified fish, shellfish, or wildlife population, do not provide water to downstream users, do not flow into other water bodies, and have a 10 (ten)-year, 7 (seven)-day low flow of zero. "Navigable waters" shall be defined as those waters which have, as a minimum, a (six) mile drainage net.

WETLANDS PROTECTION

During the last decade, the Corps of Engineers' Dredge and Fill jurisdiction was expanded from the original "navigable waters of the United States," to include "wetlands and those areas adjacent to these waters," then to "adjacent tributaries and wetlands," and to uplands that are wet only part of the time, and thus contain "wetland type vegetation." Often the program's requirements grossly violate personal property rights prior to private wetland use. Additionally, not all "wetlands" are equally valuable. Under current definitions, areas of farmland temporarily saturated by snowmelt, or artificially formed wetland areas from previous irrigation or dredging activity requires a Section 404 permit.

The current definition of "wetland" does not specifically outline the degree of "prevalence" of plant life adopted to saturated conditions, nor the extent of the wetland to be protected. Such ambiguity results in inconsistent application.

AMAX suggests than an acceptable solution would be to exclude all man-made, or unnaturally formed, or "artificial" wetlands from the statutory definition.

RECEIVED APR 2 1 1983

AAPA
American Association of Port Authorities

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President

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April 18, 1983

Senator John H. Chafee, Chairman
Subcommittee on Environmental Pollution
61 Capitol Hill Apartments
128 "C" Street, N.E.
Washington, DC 20510

Dear Mr. Chairman:

In connection with the Subcommittee hearings on reauthorization of the Clean Water Act (33 USC §§ 1251 et. seq.), the American Association of Port Authorities (AAPA) urges the Subcommittee to consider fundamental changes that are urgently needed in Section 404 (33 USC §1344) and that are, from the standpoint of ports, long overdue.

This nation's ports have a deep involvement in the 404 permit process. The maintenance of adequate water depths in the channels, berths and basins of this country's ports is critical to the proper and efficient operation of port facilities. In addition, the development of efficient modern port facilities on a continuing basis is necessary to maintain our national security, economic stability, and the appropriate import and export of commodities. The extent of this country's reliance upon port operations is perhaps best illustrated in the Summary Fact Sheet prepared by AAPA, a copy of which is attached.

These port operations involve a continuing need to discharge dredged material in our nation's waters. The 90 public port agencies of the U.S. face the challenges of obtaining Section 404 permits on an almost continuing basis. The experiences of these AAPA members with the 404 permit program have been fraught with difficulty and are characterized by unnecessary delays, increased project costs, worsening bureaucratic red tape, endless disagreements among federal agencies who "comment" upon 404 permit applications, and needless expenditures which bear little relation to the goal of environmental protection. These concerns require legislative action to correct effects which, AAPA believes, were never intended by Congress in its passage of Section 404. The administrative process has simply not proven adequate to correct its own abuses. It is time for the Congress to speak directly to port concerns.

In this letter, AAPA presents a statement of principles that

represents the basis for the changes which we believe are necessary.

Statement of Principles

- Section 404, as presently worded, does not specify the "standard" upon which permit decisions are to be made. In practice, decisions have been based upon confusing and often conflicting applications of the Corps of Engineers "public interest review" and the EPA 404(b)(1) Guidelines. This uncertainty must be removed. Section 404 should be amended (i) to specify "unreasonable degradation" as the "standard" to be applied (i.e., a 404 permit will not be issued if it would result in "unreasonable degradation" of "waters of the United States"), and (ii) to provide that this determination is to be based upon a "balancing" of all factors affecting the "public interest"--not just certain concerns (such as environmental or economic) to the exclusion of others.

- Section 404 should specify the relationship between the Section 404(b)(1) "guidelines" and the "standard" for permit decision. AAPA supports the view that the guidelines should not be "binding" compliance requirements, but "guidelines" to be considered with other relevant factors in determining whether "unreasonable degradation" will occur. If the "guidelines" are to be binding, they should not be restricted to environmental concerns alone, but should include appropriate consideration of other relevant factors in determining the question of "unreasonable degradation."

- The special recognition of port concerns in Section 404(b)(2)--i.e., "economic impact of the site on navigation and anchorage," which includes defense, employment world trade and tax revenues--should be retained to assure full and adequate consideration of the major national, regional, state, and local interests which ports serve.

- Consideration of "alternatives" (i.e., other means or methods of disposal) should be required only in those cases where a proposed discharge has a potential for causing significant adverse effects. If the discharge is essentially innocuous, there should be no rote insistence upon consideration of "alternatives."

- The Section 404(c) "veto" authority of the Administrator should be related to the standard of "unreasonable degradation" (including the consideration of all factors affecting the "public interest") i.e., a "veto" should be authorized only where the Administrator finds that the specified environmental concerns "outweigh" other factors relating to

the public interest and will result in "unreasonable degradation."

- Provision should be made for the issuance of permits for recurring maintenance dredging activities for a period of up to 10 years--either in connection with the individual permit process, or as general permits. Moreover, permit periods for construction activities should reflect time rather than arbitrary and possibly disruptive time limits. The Secretary can assure sufficient review and supervision of such activities by including appropriate monitoring and reporting requirements as conditions to the permit.

- The "general permit" procedure of Section 404(e) should be amended to specifically authorize "general permits" (i) for geographic areas, (ii) for categories of activities which, while not necessarily "similar," are appropriate for authorization by general permit, and (iii) as a means of avoiding duplication of effort and reducing unnecessary bureaucratic red tape. The Secretary can maintain adequate supervision and control over activities covered by such general permits through establishment of appropriate advance notification or reporting requirements.

- Expansion (or clarification) of Section 404(f)(1)(B) exemption from permit requirements to include shoreside structures such as piers, docks, wharves, and marine terminals.

- Section 404(q) should require that final decision be made upon a Section 404 permit application to the maximum extent practicable within 60 days, and in no event later than 90 days from the date of the Public Notice, with provision for only a single extension of time, not to exceed 30 days, when the Secretary finds "just cause" for the extension.

- Section 404(m) should specify that the right and opportunity of other federal agencies to comment upon 404 permit applications is subject to the time specified for final permit decision. Section 404(m) and (q) should further provide that "comments" upon 404 permit applications must be based upon "criteria" and "standards" established by the commenting agency that implement clearly defined statutory authority and are not inconsistent with the 404 program.

- Where "comments" upon 404 permit applications include recommendations for affirmative action to be undertaken by a permittee (e.g., mitigation, compensation, or enhancement), the recommending agency should be required to show that the

action (i) will achieve significant benefits for resources within the statutory authority of the commenting agency, (ii) is reasonably available to the applicant, and (iii) under the circumstances is feasible and practicable.

- Other federal agencies should have no "right" to force referral of "unresolved" objections to the permit to higher levels of the agencies involved. Only the Corps of Engineers, as the permitting authority, should have the "option" to seek referral or to grant the permit.

- Specific provision should be made to confirm that the final permit authority under Section 404 remains with the Corps of Engineers, limited only by the EPA's Section 404(c) "veto" authority.

We urge the Subcommittee to expand its examination of the Clean Water act to include a review of the present Section 404 permit program. We pledge to you any assistance that you may require in addressing this most important area of concern to our nation's ports.

Sincerely,

J. Ron Brinson
President

Alfred Hammon
Chairman, AAPA Committee
on Harbors and Navigation

JRB/ls
Attachment

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THE AMERICAN ASSOCIATION OF PORT AUTHORITIES

SUMMARY FACT SHEET

U.S. SEAPORT INDUSTRY--STRUCTURE

-- 189 deepwater ports on the Atlantic, Gulf, and Pacific coasts and the Great Lakes capable of handling vessels with drafts of 14 feet or more.

-- 1,456 marine terminals including 2,939 ship berthing facilities. Approximately 51 percent are publicly-owned by state and local government entities and 51 percent are privately-owned.

-- Actual cash value and estimated replacement cost of all marine facilities in the U.S. is $40.4 billion and $54 billion respectively (in 1977 dollars).

-- Total facility investment by public port authorities of $4.86 billion, in the period 1946-1978, including $1.6 billion for 1973-1978.

-- Projected port capital expenditures for 1980-1990 will be in excess of $5 billion.

-- An industry that is overwhelmingly the product of local and private initiative and investment.

U.S. SEAPORT INDUSTRY--ECONOMIC IMPACT

-- In 1980, U.S. ports accounted for:

- more than one million jobs
- $66 billion in gross sales within the nation
- $35 billion of Gross National Product
- $23 billion in personal income
- $7.9 billion in business income
- $5.0 billion in state and local taxes
- $10 billion in federal tax and customs revenues

-- The value of foreign trade equates to more than 20 percent of the value of the U.S. Gross National Product.

-- Oceangoing vessels carry more than 95 percent of the tonnage in

U.S. overseas foreign trade, all of which moves through seaports by necessity.

-- U.S. waterborne foreign commerce in 1981 totaled 886.3 million short tons valued at $318.8 billion.

-- U.S. seaports provide essential services to the nation's transportation system.

U.S. SEAPORT INDUSTRY--THE NATIONAL INTEREST

-- Provides the necessary transportation infrastructure to transfer cargo and passengers efficiently between ship and shore.

-- Facilitates movement of U.S. exports and thus helps the nation's balance of payments.

-- Provides means of entry for imports of strategic materials essential to national security - petroleum, metallic ores, etc.

-- Maintains facilities needed for the deployment of U.S. military forces and for the reinforcement and support of U.S. allies in time of war or international emergency.

THE ROLE OF GOVERNMENT

STATE AND LOCAL GOVERNMENT

-- Public port agencies are established, administered, and operated under state and local laws.

-- Public port agencies are generally self-supporting, with revenues coming from user fees, property rentals, etc.

-- Public port agencies act as local sponsors for navigation projects undertaken by federal government.

FEDERAL GOVERNMENT

-- Historically has provided anchorages, harbors, main shipping channels, navigation aids, harborworks (such as breakwaters).

-- U.S. Army Corps of Engineers and U.S. Coast Guard have been traditionally involved in port matters, with the Corps' involvement dating from 1824.

-- The policy of non-discrimination between ports is rooted in the U.S. Constitution and various shipping acts.

-- Federal investment in deepwater navigation projects is a fraction

of federal customs and vessel tax receipts collected from commerce generated by the ports. Fiscal year 1981 collections at U.S. seaports amounted to $5.6 billion from customs duties and $14 million from vessel tonnage fees contrast with total expenditures by the Coast Guard and Army Corps of Engineers for navigation projects of some $700 million.

-- Federal investment in deepdraft navigation from 1824 through FY 1979 amounted to around $4.4 billion; investment in port facilities by non-federal entities amounted to at least $5 billion for the 1946-1980 period.

THE COSTS OF SEAPORT OPERATION

-- Seaports are largely dependent on revenues generated by operations and to a lesser extent, on state and local tax monies.

-- Many are required to be financially self-supporting under state law.

-- Most seaports have only marginal returns, ranging from +2 to -2 percent.

-- Inflation has significantly raised the cost of land, equipment, construction, fuel, and all other aspects of marine terminal expansion and operation. The high cost of capital also affects the ability of ports to provide new or expanded facilities.

-- Compliance with federal health, safety, security and environmental protection has added significantly to the burden of public port costs -- $194 million in the period 1970-1976 alone.

-- Excessive delays in the processing of federal permits needed to proceed with essential terminal and navigation projects mean even higher costs, economic losses, and actually threaten to shut down some U.S. ports.

AAPA
01/83

ACEC File #700.01

american consulting engineers council

1015 FIFTEENTH STREET, N.W., WASHINGTON, D.C. 20005 ☐ (202) 347-7474
Telex: 897445 AMCONENGRC WSH

April 21, 1983

The Honorable John H. Chafee
United States Senate
567 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Chafee:

The American Consulting Engineers Council, whose members have planned and designed more than 90 percent of the wastewater treatment plants in the United States, is pleased to present this statement on S. 431 and 432, the 1983 amendments to the Clean Water Act.

We believe the 80's must be the decade of completion, refinement and resource management in wastewater treatment programs.

This will require maintenance of effort for state takeover of EPA activities, greater flexibility in some regulations and revised compliance targets for industrial discharges. We, therefore, are pleased to support many sections of the two bills under consideration by the Environmental Pollution Subcommittee.

We favor and urge favorable report of

- reauthorization of state funding in Sections 104 and 106;
- extension of industrial compliance deadlines limited to three years after final regulations issues;
- limited flexibility in pretreatment as provided in S. 431;
- limitations on ocean discharge waiver;
- partial NPDES authorization; and
- the reports on toxic exemptions and non-point sources.

We oppose and urge deletion from the bills of

- the "freeze" of designated uses based on water quality standards; and
- the increase of the civil penalty from $10,000 to 25,000 for non-compliance with permits, the same penalty for the deliberate polluters.

The Clean Water Act does not need major changes. We believe that refinement will permit more expeditious realization of the goals articulated in 1972 on a revised timetable. But what we have learned about the technology of wastewater treatment is that the levels of treatment may be achieved with refined secondary treatment technology and that water quality impacts from point source controls have limitations on overall water quality improvement. While we still have much to learn, particularly about toxics, we must permit progress to continue with regulatory consistency to permit states, localities and industries and their consulting engineers to resolve pollution problems within national standards, but with some local flexibility.

We appreciate the opportunity to present our positions on S. 431 and 432 and your consideration of them.

Sincerely yours,

William J. Birkhofer
Director
Governmental Affairs

WJB/jr

STATEMENT OF

THE AMERICAN CONSULTING ENGINEERS COUNCIL

BEFORE THE

ENVIRONMENTAL POLLUTION SUBCOMMITTEE

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

REGARDING

REAUTHORIZATION OF THE CLEAN WATER ACT

(P.L. 95-217)

(S. 431 and S. 432)

Washington, D.C.

April 6, 1983

Statement of the American Consulting Engineers Council

Mr. Chairman, Members of the Subcommittee on Environmental Pollution. The American Consulting Engineers Council (ACEC) is pleased to present this statement on reauthorization of the Clean Water Act and S. 431 and S. 432.

ACEC is a national organization of 3,800 private engineering firms. More than 900 of our member firms are actively engaged in the study, design and engineering services during constructon on industrial and municipal wastewater treatment plants. ACEC members have provided engineering for more than 90 percent of the water pollution projects since the Clean Water Act was signed into law in 1972.

Based on that experience we have concluded that fundamental goals of the act are still sound. Considerable progress has been made in cleaning up the rivers streams and coastal waters of the United States. However the second decade of the effort must be directed to completion, refinement and more effective resource management and coordination, mostly at the state and local government level.

Many projects begun in the 70s must be completed in the 80s to achieve water quality goals. This requires that EPA and state regulations remain consistent and predictable, but not cast in stone if water quality and other community goals would be better served by some flexibility.

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Refinement of water pollution control strategies will result from the substantial increase in understanding about the sources, fates and interaction of both toxic and conventional pollutants and their impacts on aquatic life. Not only has knowledge increased about these impacts but treatment plant operation and stream segment management has been refined.

Well run plants are more and more the rule in most communities. The regulators in state environmental agencies are also more professional. But these states to maintain their professional competence must have a predictable source of resources especially as more formerly federal responsibilities are accepted by states. The states cannot do more for less.

Effective resource management and coordination is essential at all levels. To assure that plants continue to operate well requires professionally trained staff and adequate dedicated revenues. Many engineering firms whose practice was limited to design and construction management have now created operating divisons which run treatment plants for municipalities and industry under contract. But financial management is essential too. There is not, and should not be any, long term federal funding assurance. The utility based concept for wastewater treatment must be routinely accepted by communities, as it is for water treatment, electric generation and telephone service. Not only must O&M be supported by user

revenues, but longer term replacement and expansion must be based on a combination of local capital development assistance and private investment, not federal grants. ACEC strongly supports alternative sources of revenue to federal grants. This is a consistent position with our support for the elimination of grants for planning and design in the 1981 amendments.

In November, 1982, ACEC together with 25 other technical professional, water infrastructure, public interest and industrial associations sponsored a National Water Symposium to look at current problems in financing water and wastewater systems, identify new technologies and develop strategies for long term solutions for the maintenance development and expansion of the National water infrastructure. More than 150 professionals participated in strategy workshops and heard from leaders from federal and state water management, the financial community and elected officials at the state and national level on the nation's water problems.

The symposium identified seven proposals which could assist to solve the water infrastructure problems. These proposals included several that impact the Clean Water Act and Senate consideration of resources for achieving wastewater treatment results.

1. Establish and implement a capital budgeting process at all levels of government local, state, federal to provide the framework for a financing mechanism that transcends political timeframes.

2. Assess fees that are sufficient to finance cost of construction operation and maintenance and replacement of the water utility.

3. Reform federal and state laws and regulations to specify results, eliminating time consuming procedural requirements.

4. Designate a specific point in time by which the municipal wastewater treatment works construction grant program will be terminated.

A copy of the Executive Summary of the Symposiums Proceedings is appended to this statement.

In light of these observations and conclusions ACEC presents the following specific comments on S. 431 and S. 432.

A. Authorizations

One of the roles that is best left central with the federal EPA is research. Despite increases in water knowledge over the last decade, refinement of water impacts especially as it relates to toxic chemicals is essential. ACEC strongly supports maintaining the programs under Section 104 of the law and extension of the authorization at current levels through 1987.

Even more important is the maintenance of federal resources to the states during this period of increasing state acceptance of delegated responsibilities. Therefore ACEC supports the authorization of 106 for state grants at the current level of $75,000,000. The contention that Section 205(j) funds authorized in the 1981 amendments substitute for the proposed reduction of Section 106 in the FY 84 budget to $30 million is not only budgetary slight of hand but false economy.

ACEC also supports the reauthorization of Sections 112; 314c(2) and 517 through 1987.

B. Compliance Dates

ACEC supports the extension of the compliance dates. This is consistent with the necessity for predictable regulatory requirements for industry especially since the BAT regulations are only now being developed and promulgated. ACEC agrees that industry should be held to a three year limit to implement the performance specification once the regulation has been approved in final. ACEC therefore also supports S. 432.

C. Ocean Waiver

ACEC believes that the current amendments relating to ocean waiver are adequate to resolve this issue and that the requirement of a minimum of primary treatment will impact very few systems. However it is unclear what is meant by "other treatment to control pathogens". The real issue of ocean waiver is one which Congress created by opening up the eligibility of coastal communities to possible eligibility in the 1981 amendments. This possibility has given many applicants who were on a specific schedule to upgrade their systems an excuse or, at least, a dilemma of whether to proceed or not. The delay will increase the cost of these systems when most are eventually told they must meet secondary standards. It is an example of the kind of change which eliminates consistency and predictability in federal requirements, except this time it was caused by Congressional action, not EPA or the states.

D. Water Quality Standards

The proposed revision of the Water Quality Standards regulations by EPA has generated much controversy. ACEC has not taken a position on the revision but is looking at it closely. There is no doubt that the designation of uses by state politics and legislative fiat was often based more on a wish, than a reasonable and achievable environmental program. These early 70's use designations often resulted in technology effluent standards and permit limitations that not only were unrealistic but had little impact on total water quality when total discharge volumes were compared with total stream flows. Many states have since reconsidered these effluent limits in light of point source as compared with non-point total loading rates as part of their review of priority stream segments.

Better understanding of effluent limits and their contribution to water quality impacts have also led many states to consider more dynamic criteria for discharge permits, including seasonal variations, timed release and other use related limits. These environmentally sensitive and resource effective management policies allow states to administer priority stream segments based on real water quality considerations not theoretical models, the basis of standards in early federal criteria. Water quality standards based on actual in-stream sampling is the way Congress intended the standards program to be managed.

Whatever impact the proposed regulatory revisions would have, the suggested amendments to Section 303(c) are not the way to deal with them. Freezing uses as of January 1, 1983, is not selective professional management based on careful state review and intensive water quality monitoring. It is a federal intrusion into the regulatory partnership which the act envisions.

Congressonal oversight of the proposed regulatory revisions is appropriate. But until such time as EPA has reviewed the more than 1,400 comments resulting from 11 public hearings and hundreds of pages of tertimony, a freeze of uses is not appropriate. It is exactly the kind of inconsistency and unpredictability which has bedeviled the water quality improvement program since the law was based in 1972.

E. Pretreatment

ACEC supports the proposed amendments to the pretreatment sections of the law. The current program has not worked and has been exceeded in difficulty to promulgate only by the difficulty to implement. Many ACEC members have reported that the establishment of a workable effective pretreatment program is often the most frustrating component of designing a modern municipal wastewater treatment system. The proposed changes make a great deal more sense.

F. Civil Penalties

ACEC opposed expansion of civil and criminal penalties in various bills last year and continues to oppose the proposed

revision of Secton 309(d). No compelling case has been made that administrative penalties available to the administrator have been inadequate or in fact have been appropriately used against polluters, whether municipal or industrial. Since the penalty for deliberate or negligent polluters is currently $25,000/day in the law, it seems inequitable to have the same maximum penalty for permit violation, that is someone who has otherwise done all necessary to be compliance but has not met the terms of the permit. ACEC supports firmer enforcement. But better enforcement does not arise from higher penalties. It results from more aggressive environmental compliance policies, and the willingness to use them.

G. Partial NPDES Program Approval

ACEC has consistently supported maximum delegation of management of the Clean Water program to the states. Some states have refused to accept delegation because there are elements of the permit program they are unwilling to undertake. If the partial program will encourage delegation acceptance by more states, then the additional authority in the law would be valuable and ACEC supports it.

H. Reports to Congress

ACEC supports both studies added to the law by the bill. Resolution of the impact of hazardous wastes discharged to municipal treatment plants and the exemption under RCRA is a necessary policy question which can only be satisfied from such a study. The impact of non-point sources on water quality is a

fundamental issue to effluent criteria and water quality standards and also must be resolved.

I. Common Law Remedies

S. 431 does not include a section on common law remedies. However, there has been sufficient discussion of such an amendment in the Senate to warrant a comment. Section 509 gives adequate cause of action to any citizen for any decision by the Administrator or delegated authority acting for the Administrator. Industries and municipalities need some certainty that compliance with a permit is adequate protection against frivolous suits. The Clean Water Act sets up a system for controlling pollution and a series of interacting administrative authorities for resolving disputes. Bypassing that system by resort to a "federal common law" not only subverts the system established by P.L. 92-500 but also diverts resources from pollution control to defense of suits outside the system. ACEC urges the Senate to permit Illinois v. Milwaukee to rest as the Supreme Court decided it and not consider creation of any federal common law remedy.

J. Dredge and Fill Permits (Section 404)

The joint responsibility between EPA and the Army Corps of Engineers to administer permits for dredge and fill projects has caused more delays, cost overruns and inconsistent interpretation of environmental policy than any other section of the clean water act. ACEC supports efforts by the Corps of Engineers to reform the regulatory process for such permits and

distinguish between projects of minimal environmental impact and local significance and those which are of general or national concern. Just as the partnership between EPA and the states has evolved, so should the regulatory partnership between the Corps and the states over such permits. Section 502(7), the definition of navigable waters, needs more specificity than "the waters of the United States". Section 404 is not an effective way to protect wetlands. If Congress believes more authority to protect wetlands is needed, it should be done by separate statute.

We believe the positions are consistent with our criteria for the second decade of water pollution control -- completion, refinement and more effective resource management, particularly at the state and local levels. We appreciate the opportunity to present this statement. Thank you.

★ FARM BUREAU ★

★★ the nation's largest general farm organization ★★

STATEMENT OF THE AMERICAN FARM BUREAU FEDERATION
BEFORE THE SENATE SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
OF THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WITH RELATION TO AMENDMENTS TO THE CLEAN WATER ACT

April 19, 1983

American Farm Bureau Federation
Washington Office — 600 Maryland Ave., SW, Washington, DC 20024. Phone: (202) 484-2222

STATEMENT OF THE AMERICAN FARM BUREAU FEDERATION
BEFORE THE SENATE SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
OF THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WITH RELATION TO AMENDMENTS TO THE CLEAN WATER ACT

April 19, 1983

The American Farm Bureau Federation is a general farm organization in 48 states and Puerto Rico. Farm Bureau membership exceeds 3.2 million member families. Amendments to the Clean Water Act as amended have potential for both direct and indirect impact on farmers and ranchers across the United States.

S. 431, legislation by Senators Chafee and Randolph, proposes in Section 11 that a new section, Subsection G, be added to Section 516 of the Clean Water Act, which would direct the Administrator, in consultation with appropriate local, state, and federal agencies, public and private organizations, and interested individuals to conduct a study of the effects and methods of control of pollution from nonpoint sources. The results of such studies would be reported to Congress no later than one year after the date of enactment of the Clean Water Act amendments of 1983.

Section 208 (b)2 of the Clean Water Act of 1972, as amended, requires, in part, each state to develop a plan that would identify, if appropriate, agriculturally related non-point sources of pollution, and set forth procedures and methods to control such sources. This planning process was, of course, a part of a comprehensive statewide water quality management planning program. Several hundred million dollars were expended in this comprehensive planning process. Millions of that money went specifically into the agricultural non-point source planning process. Virtually every state has at this time some form of an agricultural non-point source control plan. Many of these programs have been given only modest implementation since their creation, for a number of reasons. Financial constraints upon farmers and a lack of federal funding to assist farmers in complying with best management practices for agriculture are in the forefront of factors that have prohibited full implementation of these programs at the local level.

Throughout the planning process, non-point source pollution from agriculture, i.e. run-off from farmers' fields, continues to be identified in some areas of the country as a significant contributor to the total pollution burden in our nation's waters. It is not clear to us what benefit is to be gained from mandating further study of a problem that is recognized and acknowledged to exist across the country.

Some witnesses that have appeared before this subcommittee have recommended mandating specific agricultural practices as a solution to non-point source run-off from agriculture. These recommendations have ranged from a statutory mandate of contouring to mandating

no-till practices. We oppose any effort by Congress to mandate specific cultural practices for agriculture, for a number of reasons. The range of proposals is almost proof in itself that no one practice is identifiable or applicable to the diversity of American agriculture. Legislation locks us into a past or possibly a present state-of-the-art control mechanism, and does not provide the opportunity for newer, more effective, or more economic technologies to be applied in the future. Virtually no recommended solution will work under all circumstances because of the variation of rainfall, soil structure, and topography that is characterisic of American agriculture.

The purpose of the decentralized nature of Section 208 of the Clean Water Act was an acknowledgement of the diversity of sources, causes, and cures appropriate for non-point source pollution. We fail to see how a federal study will be any better than a rehash of the conclusions of the state-by-state findings that were arrived at in the 208 planning process. Such duplication of an effort already undertaken is, in our opinion, not a constructive use of federal funding. If Congress insists that the non-point source problem must be addressed faster, then we strongly urge that funds that would have been used for the implementation of this section instead be made available for cost-sharing on a voluntary basis at the individual farm level.

The committe may be interested to know that use of the moldboard plow has declined 34 percent in the past five years in the cornbelt. Meanwhile, use of conservation tillage and no-till practices has more than doubled. These practices reduce average potential erosion by 50 to 90 percent on each acre, while reducing both fuel costs and planting time.

Unfortunately, this technology is not automatically transferable to all regions or crops. Additionally, this technology is almost totally dependent on the availability of certain weed control and insect control chemicals, many of which are prohibitively expensive or restricted in their availability to agriculture. Despite these obstacles, use of conservation tillage has grown in leaps and bounds as farmers, without the aid of federal "help", have been rapidly undertaking a new technology that is providing significant relief from soil erosion problems on the farm and water pollution problems in our nation's waterways.

Had this Committee in the past insisted on mandating terracing as a solution to a farmer's non-point source problems, this new technology would not be developed to its present state. We would have been regulated into a more energy intensive soil moving program that would have been more costly, more difficult to implement and extremely burdensome. We recommend that the provision in Section 11 of S. 431 proposing to amend Section 516 of the Clean Water Act by adding a new subpart (g) be deleted from the bill.

We are disappointed that the legislation proposed by the leadership of this committee fails to address a significant problem confronting agriculture under the authority of the Clean Water Act as amended. Throughout much of the country, a substantial portion of agricultural land is drained by a combination of man-made and natural drainage ditches that must be routinely maintained by periodic cleaning and deepening. Farmers' efforts to routinely maintain these ditches are a part of normal farming practices. Despite the clear exemption of this activity from regulation under Section 404 f(1)(A) and (C), which says that normal farming activities, including minor drainage, are not subject to regulation and that maintenance of drainage ditches is not subject to regulation, farmers have found themselves subjected to the permit process. Over the approximate 10-year life of a drainage ditch, it tends to silt in and its ability to drain the land that it was designed to serve is reduced. Cleaning and deepening the ditch is intended to restore its original drainage pattern. Thus, land that recently has become too wet to crop as a result of a failing drain is brought into productive use again. The Corps has argued that this activity is "bringing an area into a use to which it was not previously subject." Therefore the activity is subject to a permit which is, upon application, frequently either not granted or so heavily conditioned as to preclude the ability of the farmer to pursue the activity. We would strongly urge this committee to include a clarification of the normal farming activity exemption from Section 404. It is not our purpose under this request to argue for authority for farmers or other people to engage in the wholesale conversion of hardwood bottom lands in the Southeast into agriculture. Instead, we asked that farmers be allowed to continue to operate the land which was farmland in the past, and which he wishes to continue as farmland in the future.

Although we had thought the legislative language was sufficiently clear on this point to allow normal farming activities to continue unimpeded by federal intervention, such has not been the case. We encourage the committee to add a modest amendment to the legislation extending the Clean Water Act that would repeal subsection (f)2 of Section 404 of the Clean Water Act as amended. This change would make clear that farming activities conducted for purposes of food and fiber production are not subject to regulation under the 404 program. We recognize that some will argue that this amendment would create a loophole that would serve as a sanction for the conversion of current wetland timbered areas into a drained, productive agriculture region. It is not our intention to create that loophole, and we recognize the seriousness of that concern. However, there has been responsible effort conducted by many people over the years to provide the necessary flexibility for routine agricultural practices, and that effort has been consistently thwarted by people who choose to misuse subsection (f)2 for purposes of denying all agricultural activities the opportunity to be continued under the broad categorical exemption of section (f)1. If a more precise way of accommodating agriculture's concerns can be arrived at, short of repeal of Section (f)2, we would be pleased to

work with members of the committee in devising such a solution. Short of a more responsible solution than that we propose, we would encourage complete repeal of subsection (f)2.

Aquaculture activities, which include the propagation, rearing, and harvesting of marine and aquatic species in controlled or selected environments in fresh, brackish, or salt water, are included in the normal definition of agricultural activities. This was made clear in amendments to agricultural legislation passed by the 97th Congress. We would request a modification in the language of Section 404 (f)1 of the Clean Water Act that would include aquaculture in the definition of agricultural activities. We feel that this inclusion is necessary to make clear that aquaculture activities should not be subject to a permit process during necessary reconstruction, repair, and maintenance of dikes, dams, levees and other activities necessary for routine aquaculture operations. Clam farmers conducting activities with a dredge--a machine used for lifting the clams from the bottom of a bay--have been subject to regulation by overzealous Corps personnel who have declared this lifting of clams from the bottom of the bay to be a dredging activity. Catfish farmers have been regulated while attempting to maintain levees around ponds. Surely, this was not the intent of the drafters of the Clean Water Act. It is counterproductive to aquaculturalists and consumers. Aquaculture is an environmentally innocuous activity and ought not to be subject to harassment under this program. The addition of the words "including aquaculture" added in parentheses following "farming" in 404 (f)1 would provide the necessary clarification.

We would appreciate it if our comments could be made a part of the hearing record.

AIHC

AMERICAN INDUSTRIAL HEALTH COUNCIL

1612 K STREET, N.W., SUITE 308, WASHINGTON, D.C. • (202) 659-0060

April 19, 1983

Senator John H. Chafee
Chairman
Environmental Pollution Subcommittee
Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20515

Re: Clean Water Act Reauthorization
(S. 431 and S. 432)

Dear Mr. Chairman:

I am writing this letter on behalf of the American Industrial Health Council ("AIHC") to stress the importance of an adequate science base for regulatory decisions under the Clean Water Act and to urge your Subcommittee to support the creation of a Clean Water Act Science Advisory Committee to provide EPA with unbiased scientific evaluations in its development of health-related criteria and standards under the Act.

American Industrial Health Council

AIHC is an organization of about 90 industrial companies formed in 1977. Its purpose is to offer or evaluate regulatory and legislative proposals involving scientific issues relating to chronic health hazards and to support legislation and administrative actions that promote the use of the best science in regulatory decision-making and that ensure the adequacy of the science base for regulatory decisions.

Independent Science Panels Improve Adequacy of Science Base For Regulatory Decisions

AIHC supports the concept of strengthening agency science panels to improve the scientific basis for chronic health hazard evaluations used in Federal regulatory decision-making. To achieve that goal with respect to regulatory decision-making under the Clean Water Act, AIHC urges your Subcommittee to include in the reauthorization bill a provision to establish a new science advisory panel to provide EPA with sound scientific advice in connection with its development of

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health-related criteria and standards. Concurrently, AIHC suggests that the Effluent Standards and Water Quality Information Advisory Committee be revived and authorized to provide advice on technology-based standards. Amendments to add these provisions have been drafted, and copies are attached for your consideration.

AIHC has been a strong supporter of strengthening existing advisory committees as to both scope of action and scientific expertise and of establishing new advisory panels where needed to ensure a sound science base for regulatory decisions. The importance of providing peer review of the scientific evaluations upon which regulatory decisions are based at an early stage of the regulatory process cannot be overstated.

Report of the National Academy of Sciences

The Committee on the Institutional Means for Assessment of Risks to Public Health of the National Academy of Sciences ("NAS") recently issued a report entitled "Risk Assessment in the Federal Government: Managing the Process" ("NAS Report"). The NAS favors independent science panels in regulatory agencies to provide peer review of risk assessments. It stated, "Agencies and programs with mandated peer review panels . . . produce final risk assessments in support of regulatory decisions that are generally of high scientific quality and are accepted by the public and the regulated parties." NAS Report at 144. The report went on to say that "[c]ontinuity and independence of review panels help to ensure that such panels are sensitive to regulatory needs while retaining the necessary scientific objectivity." Id. at 145. The report stressed the need for early involvement of the advisory panels in the regulatory process and recommended rotation of members for staggered, fixed terms to reduce the development of an institutional bias.

Recommendation of the Administrative Conference

The Administrative Conference of the United States ("ACUS") has also supported the need for peer review of regulatory decisions. As it has stated, "Peer review of experimental findings and scientific judgments is an important means of validating the technical bases of regulatory decisions concerning carcinogens." Administrative Conference of the United States, Recommendation 82-5, "Federal Regulation of Cancer-Causing Chemicals" (June 18, 1982), at 6, 47 Fed. Reg. 30701, 30712. The ACUS has recommended that "[t]o the extent compatible with existing law, agencies should structure their

decisional processes to incorporate mechanisms for scientific peer review." Id. The use of advisory panels is recommended by the Administrative Conference as one means of obtaining peer review, since

> [a]dvisory panels can contribute objectivity as well as expertise to agency decisions. Their advice has sometimes prevented erroneous regulatory actions; more frequently, their role has been to illuminate complex issues and enhance the quality and thus the credibility of agency scientific analysis.

Id.

The Proposed Science Panel Implements the NAS and ACUS Recommendations

AIHC's proposal is consistent with and would implement the NAS and ACUS recommendations. The new science advisory panel proposed by AIHC would be called the Clean Water Act Science Advisory Committee ("CWASAC"). CWASAC would evaluate all scientific data and risk assessments relating to:

- any proposed toxic effluent standard under Section 307;
- any proposed revision to the list of toxic pollutants designated by Section 307(a);
- any proposed regulation concerning identification of hazardous substances or quantities under Section 311(b)(4);
- any proposed water quality criteria under Section 304(a);
- any proposed ocean discharge criteria under Section 403(c); and
- any proposed guidelines concerning sludge disposal under Section 405(d).

The EPA Science Advisory Board ("SAB") has been requested from time to time to review criteria documents and other agency evaluations of scientific data. Clean Water Act matters are referred to the SAB as a matter of administrative discretion and not by statutory directive. AIHC's proposal

would establish a regular statutory procedure for independent scientific peer review of health-related criteria and standards by a standing scientific advisory panel. This would ensure that EPA receives expert independent scientific advice in this important area of health based regulations.

Under AIHC's proposal, CWASAC would be composed of seven members appointed for staggered four-year terms by the EPA Administrator from a list of scientists nominated by the National Academy of Sciences. The NAS would select nominees from among individuals recommended by organizations of professional scientists, faculties of colleges and universities, heads of Federal and state agencies, and distinguished members of the scientific community. Members would also be subject to conflicts of interest regulations.

The selection of members of CWASAC should be based solely on their scientific expertise. As the NAS report recommended, "Panel members should be selected for their scientific or technical competence." NAS Report at 156.

Advisory Committee Review of Technology-Based Regulations

The Effluent Standards and Water Quality Information Advisory Committee ("ESWQIAC") was established in 1972 by Section 515 of the Clean Water Act. This scientific advisory committee was created primarily to assess and evaluate scientific and technical information in the technology-based effluent standards and limitations. Section 515 provides for the selection of the Committee and the procedure for review of proposed standards and limitations.

ESWQIAC, however, has not been funded since around 1976. AIHC suggests that ESWQIAC be revived. The nature of the data and the scientific expertise to review the data and assessments underlying the technology-based standards are different from the data and scientific background for review of health-based regulations. To avoid overlap with CWASAC, it is proposed that the Act provide specifically for evaluation and review under Section 515 of the following technology-based standards, limitations and guidelines:

* any proposed effluent limitations guidelines under Sections 301 and 304(b);

* any proposed pretreatment standards under Section 307(b); and

- any proposed standards of performance for new sources required by Section 306.

Under this proposal the Committee would be responsible only for the evaluation of scientific data and technical information relating to proposed technology-related standards under the Clean Water Act. Review of the scientific data and risk assessments relating to health-related water quality criteria and standards would be the responsibility of the proposed Clean Water Act Science Advisory Committee.

Two additional changes would be desirable in Section 515.

First, to rename ESWQIAC so that its focus on technology-based regulations is clear. It is proposed that the Committee be designated as the "Effluent Standards Advisory Committee" ("ESAC").

Second, it is proposed that the procedures governing ESAC be modified to parallel the NAS and Administrative Conference recommendations.

Currently, Section 515 provides that ESWQIAC shall be composed of a Chairman and eight members, appointed by the EPA Administrator for four-year terms. The qualification for appointment is that a member "be selected from the scientific community, qualified by education, training, and experience to provide, assess, and evaluate scientific and technical information on effluent standards and limitations." (Sec. 515(a)(2).)

AIHC proposes that Section 515 be amended to provide a process for nominations of members of ESAC by the National Academy of Engineering. The National Academy of Engineering is a subsidiary organization of the National Academy of Sciences, and its membership is eminently qualified to find and evaluate candidates for appointment to ESAC. In addition, the nomination process should allow public input by organizations of professional scientists, faculties of colleges and universities, heads of Federal and state agencies, and distinguished members of the scientific community.

To provide continuity in the operation of ESAC, it is proposed that membership on the Committee be four-year staggered terms. The initial appointments, therefore, would be two members for one year, two for two years, two for three years and three for four years. All subsequent appointments would be for a full four-year term (except for vacancies which would be filled for the balance of the term which was vacant).

Conclusion

AIHC urges that the recommendations of the National Academy of Sciences and the Administrative Conference of the United States be implemented by amendments to the Clean Water Act --

- to provide a standing panel of independent scientists for review of scientific data and risk assessments relating to health-based criteria and regulations, and

- to provide a standing scientific committee to review scientific data and technological information relating to technology-based standards and limitations.

As noted above, proposed amendments to accomplish these results are attached. We would be pleased to supply any additional information desired by the Committee.

Sincerely,

Monte C. Throdahl
Chairman, Science Policy
Task Force

Enclosure

Amendments to S. 431

On page 15, after line 25, insert a new section to read as follows:

SEC. 10. Title V of the Clean Water Act is amended by inserting after Section 515 the following new section:

"CLEAN WATER ACT SCIENCE ADVISORY COMMITTEE

"SEC. 516.(a)(1) There is established a Clean Water Act Science Advisory Committee, which shall evaluate risk assessments and scientific data referred to it by the Administrator pursuant to subsection (b).

"(b) The Administrator shall submit to the Committee for evaluation as to the impact on human health all risk assessments and scientific data relating to --

"(1) any proposed toxic effluent standard under Section 307 of this Act;

"(2) any proposed revision to the list of toxic pollutants designated by Section 307(a) of this Act;

"(3) any proposed regulation concerning identification of hazardous substances or quantities under Section 311(b)(4) of this Act;

"(4) any proposed water quality criteria under Section 304(a) of this Act;

"(5) any proposed ocean discharge criteria under Section 403(c) of this Act; and

"(6) any proposed guidelines concerning sludge disposal under Section 405(d) of this Act.

"(c) The Administrator shall refer all risk assessments and relevant scientific data specified in subsection (b) to the Committee no later than one hundred and eighty days prior to the date on which the Administrator is required to publish any such proposed regulation, standard, criteria, or guideline.

"(d) Within ten days after receipt of a risk assessment specified in subsection (b), the Chairman of the Committee shall publish a notice of such referral and an invitation for public scientific input for the evaluation process.

"(e)(1) The Committee shall review all relevant scientific evidence relating to a risk assessment referred to the Committee pursuant to subsection (b) and shall submit a written scientific evaluation of the risk assessment to the Administrator no later than one hundred and twenty days after receipt of the risk assessment.

"(2) The Committee shall include in its written evaluation the specific findings of the Committee and a discussion of the latest available science.

"(3)(a) The evaluation of the Committee shall be advisory in nature.

"(b) If at any point in the rulemaking process the Administrator departs from the evaluations of the Committee, the Administrator shall publish an explanation of reasons for such departure at the same time the Administrator publishes the rulemaking relating to the evaluation."

"(f)(1) The Committee shall be composed of seven members who shall be appointed by the Administracor in accordance with paragraphs (2) and (3).

"(2) Each member appointed to the Committee shall be qualified and distinguished by education, training and experience to assess and evaluate scientific and technical information relating to health-based criteria and regulations under the Act.

"(3) The Administrator shall make the appointments from nominations selected by the National Academy of Sciences from among individuals who meet the requirements specified in paragraph (2) and who are recommended to the National Academy of Sciences by organizations of professional scientists, faculties of colleges and universities, heads of Federal and state agencies, and distinguished members of the scientific community.

"(g)(1) Except as provided in paragraph (2), each member of the Committee shall be appointed for a term of four years.

"(2) Of the members first appointed to the Committee, one member shall be appointed for a term of one year, two members shall be appointed for a term of two years, and two members shall be appointed for a term of three years.

"(h)(1) A vacancy on the Committee shall be filled in the manner of the original appointment.

"(2) Any member appointed to fill a vacany occurring before the expiration of the term for which the predecessor was appointed shall be appointed for the remainder of such term.

"(i) Members of the Committee may be reappointed to serve an unlimited number of terms.

"(j) The Administrator shall appoint a Chairman each year from among the members of the Committee.

"(k) The Administrator shall promulgate regulations regarding conflicts of interest with respect to the members of the Committee.

"(l) Each member of the Committee shall be entitled to receive per diem compensation at a rate not in excess of that fixed for GS-18 of the General Schedule under section 5332 of title V of the United States Code, as may be determined by the Administrator.

"(m) Four members of the Committee shall constitute a quorum, and official actions of the Committee shall be taken only on the affirmative vote of at least four members.

"(n) The Committee is authorized to make such rules as are necessary for the orderly transaction of its business."

On page 16, line 2, renumber "SEC. 10" to read "SEC. 11."

On page 16, line 10, insert the following new section to read as follows:

SEC. 12.(a) Section 515(a)(1) of the Clean Water Act is amended by striking "Effluent Standards and Water Quality Information Advisory Committee" and inserting in lieu thereof "Effluent Standards Advisory Committee".

(b) Section 515(a)(2) of the Clean Water Act is amended by inserting immediately after "selected from" the following: "nominations by the National Academy of Engineering from among", and by inserting at the end "and who are recommended to the National Academy of Engineering by organizations of professional scientists, faculties of colleges and universities, heads of Federal and state agencies, and distinguished members of the scientific community".

(c) Section 515(a)(3) of the Clean Water Act is amended by striking paragraph (3) in its entirety and inserting in lieu thereof the following:

"(3)(a) Except as provided in subparagraphs (b) and (c), members of the Committee shall be appointed for a term of four years and may be reappointed to serve an unlimited number of terms.

"(b) Of the members first appointed, two of the members shall be appointed for a term of one year, two members shall be appointed for a term of two years, and two members shall be appointed for a term of three years.

"(c) A vacancy on the Committee shall be filled in the manner of the original appointment. Any member appointed to fill a vacancy occurring before the expiration of the term for which the predecessor was appointed shall be appointed for the remainder of such term."

(d) Section 515(a) of the Clean Water Act is amended by inserting at the end thereof the following new paragraph:

"(4) The Administrator shall promulgate regulations regarding conflicts of interest with respect to members of the Committee".

(e) Section 515(b)(1) of the Clean Water Act is amended by striking paragraph (1) in its entirety and inserting in lieu thereof the following:

"(b)(1) The Administrator shall submit to the Committee for its evaluation --

"(a) any proposed effluent limitations guidelines under Sections 301 and 304(b) of this Act;

"(b) any proposed pretreatment standards under Section 307(b) of this Act; and

"(c) any proposed standards of performance for new sources required by Section 306 of this Act."

On page 16, line 11, renumber "SEC. 11" to read "SEC. 13."

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* Immediate Past Chairman
† Honorary

June 16, 1983

The Honorable John H. Chafee
Chairman
Environmental Pollution Subcommittee
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

The American Mining Congress (AMC) has followed with interest the work of your subcommittee regarding amendments to the Clean Water Act. We wish to present to you for inclusion in the legislative record AMC's views about changes that are necessary to improve the Act.

AMC is an industry association that encompasses the producers of most of America's metals, coal, industrial and agricultural minerals; manufacturers of mining and mineral processing machinery, equipment and supplies; and engineering and consulting firms and financial institutions that serve the mining industry. Many of the facilities in our industry discharge to waters of the United States and are directly regulated by the Clean Water Act. As an industry, we have faithfully complied with the Act's mandates, expending large sums of money to do so. Our mines, mills, smelters and refineries have achieved a very good record of pollution reduction through compliance with the Act's technology-based standards. It is out of the industry's extensive experience with the provisions of the Act that we make recommendations for amending it.

A summary of AMC's recommendations follows. A more detailed explanation of some of these issues is attached for your consideration.

Compliance Deadlines

Due to the schedule on which EPA has promulgated its technology-based effluent limitations guidelines for industry categories, it is inevitable that the compliance deadlines in Section 301 of the Act must be extended beyond July 1, 1984. AMC favors such an extension.

The effluent guidelines for the Coal Mining and Ore Mining and Dressing categories were promulgated only within the past year. Those for nonferrous smelters and refineries will not be promulgated for another year or two. The deadlines for compliance must be extended to permit regulated facilities sufficient time to raise the capital, and acquire and install the technology necessary to meet the prescribed limitations.

The Act's Goals

The "zero discharge" goal in Section 101(a)(1) of the Act should be modified to call for the elimination of the discharge of pollutants in harmful quantities. This goal, in its literal sense, is unrealistic and inconsistent with several provisions of the Act. Because it is allowed to stand in its present formulation, however, courts construe the goal on its face, which often leads to an impractical result. See e.g. National Wildlife Federation v. Gorsuch, 530 F. Supp. 1291 (D.D.C. 1982), rev'd, 639 F.2d 156 (D.C.Cir. 1982).

The "fishable/swimmable" goal in Section 101(a)(2) should be made more flexible to provide that such water quality is to be achieved to the extent that, and as fast as, it is reasonable to do so. Such changes are necessary to recognize that achievement of this goal is not possible by July 1, 1983, as the Act currently requires, and that not all water bodies realistically can be cleaned up to the extent necessary to support fish and wildlife or be used for all recreational purposes.

Intermittent Streams

The Act should be amended to provide that water-quality-based standards should not be applied to discharges on streams having only an intermittent natural flow except on a case-by-case basis and then only when there is a significant environmental benefit from the additional control requirement. Intermittent streams have no natural flow during dry weather. In such periods, effluent from the discharger becomes the stream flow. The technology-based standards of the Act should be controlling on the flow in such instances, except where it is shown on a case-by-case basis that additional controls (i.e. water quality standards) are required.

Water Quality Standards

Section 6 of S. 431 would require that the "designated use" component of state water quality standards in place as of January 1, 1983, be maintained as a minimum standard. AMC strongly opposes this provision. The provision fails to recognize that use designations may have been set unrealistically high in the past as an automatic reaction to the Act's fishable/swimmable goal and EPA's policy of "presumptive applicability."

It also precludes the possibility of establishing a more accurate use designation for a particular water body through site-specific analysis. The provision is not necessarily helpful to the goal of cleaning up the nation's waters and in fact may be counter-productive in its effect.

Permit Terms

The term for NPDES permits should be extended to at least ten years. Such a change will provide certainty for planning and ease the administrative burden upon industry and government, but would not diminish protection to the environment.

Storm Water Runoff

At some mining sites, storm water runoff, which once flowed across open areas and became contaminated, is now diverted away from contamination by conveyances and structures built by the operator. These structures prevent, or at least minimize, storm water runoff contamination resulting from contact with active operating areas. The structures and conveyances built to divert such runoff should be excluded from the Act's definition of "point source" and thus not be subject to discharge permits. To do otherwise penalizes operators for making expenditures to prevent storm water runoff contamination. Such a result is unfair and unreasonable since the Act does not require any control of storm water runoff if no diversion is made.

Dredge and Fill Permit Program

The dredge and fill permit program in Section 404 is one of the most controversial aspects of the Act. Much of the concern for this section arises from its overly expansive scope, and its ambiguous and complicated multiagency administration. The jurisdictional scope of the permit program should be limited. The program should be designed to protect only those wetlands truly in need of protection. Section 404(c) should be amended to provide that only the Corps of Engineers has authority over the issuance and supervision of Section 404 dredge and fill permits.

Thank you for the opportunity to present AMC's views on the important subject of Clean Water Act Amendments. We would be happy to work with you and members of your Subcommittee to see that these recommendations are implemented. Any questions on these matters should be directed to Doug McAllister, AMC assistant chief counsel, (202)861-2878.

Sincerely,

J. Allen Overton, Jr.
President

ISSUE PAPER
Zero Discharge Goal

RECOMMENDATION:
Rephrase the language in Section 101(a)(1) making it a national goal to eliminate the discharge of pollutants in harmful quantities. Make conforming changes in other sections of the Act where the "zero discharge" goal is mentioned.

PROBLEM:
Section 101(a)(1) of the Act presently provides: "it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985." Even though Congress never intended the "zero discharge" goal to be legally binding, but only a "target,"* the courts have construed the goal on its face.

Given the fact that effluent limitations representing BAT and BCT have not been promulgated for most industrial point sources and control of non-point source pollution is in its infancy, achievement of the "zero discharge" goal by 1985 is unrealistic.

The ultimate practicability of achieving "zero discharge" across the board is also in serious question. While technologies may exist to eliminate the discharge of pollutants, they often are extremely costly, highly energy intensive and will create sludge disposal or air emission problems of an enormous magnitude. In many cases the costs of eliminating the last traces of a pollutant would not be justified by the incremental water quality benefits that would result. In fact, there is a point at which removal of pollutants from wastewater becomes counterproductive in that more pollutants are generated elsewhere than are removed from the wastewater (*e.g.*, the pollutants that are generated during the production of electric power needed to operate pollution control equipment, and pollutants generated in the production of the materials used to manufacture the pollution control equipment).

Furthermore, as our scientific ability to measure smaller and smaller traces of a pollutant is developed, the "zero discharge" goal becomes more and more difficult realistically to achieve.

Moreover, several provisions in the 1977 amendments to the Act are inconsistent with the "zero discharge" goal and apparently reflect Congress' intent that the goal not be taken literally. For example, the BCT provisions added in 1977 require that controls for conventional pollutants be set at cost-effective levels. The absolute elimination of discharges of these pollutants is not required. Also, the 1977 amendments require BAT controls for non-conventional pollutants, but in some cases implementation is not required until 1987. This is certainly inconsistent on its face with the 1985 "zero discharge" goal. The "zero discharge" goal also is inconsistent with the state water quality standards provisions of the Act, because it may be possible, in many cases, to achieve these standards without eliminating all pollutant discharges.

SOLUTION:
The language in Section 101(a)(1) of the Act should be modified, making it a national goal to eliminate the discharge of pollutants in harmful quantities. This modification should be construed to call for the establishment of effective, yet attainable discharge limits consonant with a reasonable balance between clean water goals and other desirable social and economic goals of the society. Such a modification is much more realistic and is consistent with other provisions of the Act. Conforming changes also should be made to other sections of the Act where the "zero discharge" goal is mentioned, *e.g.*, Sections 301(b)(2)(A), 301(c), 301(k), 304(b)(3), 306(a)(1). A "consistent with the goals of this Act" phrase should replace any mention of "zero discharge" in these sections.

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*"The goal is best understood as an objective to be achieved insofar as technology permits, taking into account the costs of applying such technology." *A Legislative History of Water Pollution Control Act Amendments of 1972*, Vol. 1, p. 149.

ISSUE PAPER

Fishable/Swimmable Water Quality Goal

RECOMMENDATION:

Inject greater flexibility by providing in Section 101(a)(2) that the national goal of water quality that will support fish, shellfish and wildlife and is suitable for recreational uses is to be achieved to the extent that, and as fast as, it is reasonable to do so.

PROBLEM:

Section 101(a)(2) of the Act now provides that, whenever attainable, water quality, which protects and permits the propagation of fish, shellfish and wildlife, and is suitable for recreational uses, must be achieved by July 1, 1983.

Modification of this goal is necessary for several reasons. Because of present municipal and industrial uses and natural conditions, not all water bodies realistically can be cleaned up to the extent necessary to support fish and wildlife or to be used for all recreational purposes.

Also, the goal must be phrased so as not to conflict with other provisions of the Act that grant states discretion to classify state waters for various uses. States should be allowed to classify, for other uses, those waters which, because of natural causes or present uses, do not support fishing or swimming.

Moreover, in many cases the benefits to be derived from achieving water quality that is as high as the stated goal are not commensurate with costs. Attempting to achieve high water quality in some cases, such as where there is a limited supply of water, can deprive facilities of urgently needed water and, at the same time, limit necessary development.

While the Act's stated goal of fishable and swimmable water may sometimes prove achievable at reasonable cost, it nevertheless may be unachievable by July 1, 1983. When Congress enacted the 1972 amendments, the "fishable/swimmable" goal was to be attained by the achievement of BAT in 1983. When the 1977 amendments changed the BAT compliance deadline to 1984 and beyond but did not change the 1983 water quality goal date, the meaningful coordination between BAT and water quality goals was lost. Accordingly, the date to achieve water quality goals either should be omitted or changed to be consistent with whatever compliance deadline is established finally for BAT.

Additionally, consideration must be given to the date by which non-point pollution can be controlled to achieve the goal. In 1980, the House Public Works and Transportation Subcommittee on Oversight stated, "[T]he attainment of a goal of 'fishable, swimmable' waters by *any* date, let alone 1983...is highly dependent on the degree to which nonpoint pollution can be controlled."

Extension of the 1983 date is also desirable because it allows the states additional time to secure the necessary funding to operate programs that will help achieve the goal.

SOLUTION:

Amend Section 101(a)(2) of the Act to provide that the fishable/swimmable goal is to be achieved to the extent that, and as fast as, it is reasonable to do so.

ISSUE PAPER

National Pollution Discharge Elimination System (NPDES) Permits

RECOMMENDATION:

Amend Section 402(b)(1)(B) to allow the issuance of NPDES permits for periods of at least ten years, providing for automatic renewal upon self-certification of "no change in status." Consideration should also be given to allowing the permit to be reopened by either party during its life.

PROBLEM:

Section 402(b)(1)(B) of the Act provides that NPDES permits may be issued for a fixed term not to exceed five years. The five-year limitation is insufficient to provide certainty for planning and unnecessarily burdens the regulatory process. Most business decisions commit a company's resources, etc. for periods of much longer than five years. Also, the short-term five-year permit period creates an administrative burden on EPA which causes unnecessary expenditures of time and money by industry and government, especially when the permit expires where no significant changes have occurred since its issuance. In addition, the planning, design, construction and start-up operation of a new treatment facility could take nearly four years in itself.

Extending the life of an NPDES permit would provide more flexibility for business planning, and would ease the industry and government administrative burden without diminishing protections to the environment. EPA still would have authority to reopen a permit proceeding and revise or revoke the permit for just cause. Nor would extending the life of the permit diminish the emergency powers granted EPA by the Clean Water Act to address unique situations that pose eminent threats to the environment.

SOLUTION:

Authorize the issuance of NPDES permits for periods of at least ten years. Permit procedures should be simplified where no significant changes have occured since the permit was first issued. For example, the Act could provide for automatic renewals upon self-certification of "no change in status." EPA would retain the authority to open the permit for review and possible revision or revocation at any time for just cause. Consideration also should be given to allowing the permit to be reopened by either party during its life.

ISSUE PAPER
Storm Water Run-off

RECOMMENDATION:
Amend Section 502(14) of the Act so that structures and conveyances which prevent storm water run-off contamination are *not* defined as "point sources." This change would ensure that the operator is not required to further treat diverted run-off, and would be consistent with the Act's treatment of municipal storm water run-off.

PROBLEM:
At some sites storm water run-off, which once flowed across open areas and became contaminated by picking up metals and solids, is now diverted away from contamination by conveyances and structures built by the operator. These structures prevent, or at least minimize, storm water run-off contamination resulting from contact with active operating areas.

EPA, which has jurisdiction under the Clean Water Act only over "point source discharges" of water pollutants, has considered the discharges from such conveyances and structures to be from "point sources." As a result, operations that have made expenditures to prevent or minimize contamination of storm water run-off by diverting it away from the operating area, may be obliged to make further expenditures to treat or contain such run-off as "point source discharges." This would in effect penalize operators for making expenditures to prevent storm water run-off contamination. Since large volumes of water are involved, the costs of control would be extremely burdensome. Such a result is unfair and unreasonable since: (1) the Act does not require any control of storm water run-off if no diversion is made; (2) the water diverted is benefited by less contamination; and (3) municipalities do *not* have to treat storm water run-off.

SOLUTION:
Amend the Act to provide that structures and conveyances which prevent or minimize contamination of natural storm water run-off are *not* "point sources," and operators are therefore *not* required to further treat the diverted run-off.

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ISSUE PAPER

Section 404 Dredge and Fill Program

RECOMMENDATION:

Limit the jurisdictional scope of the Section 404 dredge and fill permit program. The term "wetlands" should be defined for purposes of Section 404 to limit the program to areas that are truly in need of protection. Amend Section 404(c) to provide that only the Corps of Engineers has authority over issuance and supervision of 404 permits.

PROBLEM:

One of the major inequities of the existing scope of Section 404 lies in the broad jurisdiction of the Corps of Engineers (COE) to cause property owners to perform expensive studies, be delayed, and in some cases be restricted prior to using private property for otherwise legal and beneficial purposes. Prior to passage of the Clean Water Act and promulgation of subsequent regulations, Corps of Engineers' dredge and fill jurisdiction was limited to navigable waters of the United States. During the mid to late 1970's, this jurisdiction was gradually extended from navigable waters to wetlands adjacent to these waters, then to adjacent tributaries and wetlands, and now to uplands that are wet only part of the time and thus contain "wetlands type vegetation." Many property owners held surface or mineral rights well before this time, and now are restricted in developing or using the property because of the expanded jurisdiction of the dredge and fill permit program.

The expansive scope of the existing permit program frequently makes the program a federal tool for land use planning, thus encroaching on rights and authorities traditionally left to the states. Legislative changes are necessary to limit the jurisdiction of the permit program.

The current definition of "wetlands" requires a "prevalence" of plant life that is adapted to life in saturated soil conditions. Problems arise because "prevalence" is not further defined and, in practice, is left to the discretion of the personnel conducting the wetlands review. Similar difficulty arises from lack of any standard regarding the areal extent of a wetland that should trigger the requirement for a dredge and fill permit. As a result, COE wetlands reviews tend to be arbitrary and inconsistent. A more specific definition of the term "wetlands" is required in Section 404 to apply the dredge and fill program to those areas truly in need of protection.

Section 404(c) grants EPA veto power over the issuance and continued validity of a 404 permit. Joint jurisdiction is unnecessary and only adds to uncertainty, time delays, and costs of administering the 404 permit program. This section should be changed to provide that only one agency, the Corps of Engineers, has authority over issuance and supervision of 404 permits. Comments from EPA and the Fish and Wildlife Service should be responded to and acted upon in the same manner as comments by any other agency or the public made during the public comment period.

SOLUTION:

Limit the jurisdictional scope of the Section 404 dredge and fill permit program. This might be done by defining "navigable waters" for purposes of Section 404.

"Wetlands" should be specifically defined for purposes of Section 404 to apply the dredge and fill permit program to those areas truly in need of protection.

Amend Section 404(c) to provide that only the Corps of Engineers has authority over issuance and supervision of Section 404 dredge and fill permits.

ISSUE PAPER

EPA Review of State Standards and Permit Program Administration

RECOMMENDATION:

Amend the Clean Water Act to make it clear that, except in limited instances, States should not apply water quality based standards to discharges on streams either having an ephemeral or intermittent natural flow. Limits beyond technology based effluent limitations should be applied to discharges on such streams on a case-by-case basis only when there is a significant environmental benefit from the additional control requirement

PROBLEM:

In virtually every case, water quality standards are more stringent than effluent standards developed by EPA under Sections 301 through 304 of the Clean Water Act. The Act requires states to adopt water quality based standards. Failure of the states to act leads to adoption of water quality based standards developed by EPA. In adopting these standards, states have traditionally applied them to all streams, with little or no field studies to determine whether or not the criteria are appropriate. The concept of applying these stringent water quality standards as end-of-pipe limits has never been shown to be reasonable or necessary.

EPA has exacerbated the situation by requiring the States to adopt water quality based standards reflecting the highest designated use, despite the fact that the discharges can meet the most stringent technology-based effluent limitations.

Ephemeral or intermittent streams have no natural flow during dry weather. In such periods, effluent from the discharger becomes the stream flow. The current law requires that any flow (whether it is natural or from a discharge) must meet water quality based standards. This problem is particularly acute in mountainous areas, in the upper reaches of streams which by their nature are intermittent. During dry weather, little or no natural surface flow occurs in these streams. This is also a problem in the western U.S. where relatively large streams are dry much of the year.

SOLUTION:

The Clean Water Act should be amended so that water quality based (stream) standards are not applied as technology based (end-of-pipe) effluent limits to discharges into ephemeral or intermittent streams. There may be rare occasions where certain such streams require additional protection through effluent limitations more stringent than present technology based treatment levels prescribed by EPA. However, such limits should only be applied on a case-by-case basis after field studies show that there will be a significant environmental benefit from the added control.

Statement of
American Textile Manufacturers Institute
Before the
Senate Environment and Public Works
Subcommittee on Environmental Pollution
April 14, 1983

Mr. Chairman, we appreciate the opportunity to submit a statement for the printed record of hearings on the reauthorization of the Clean Water Act.

The American Textile Manufacturers Institute (ATMI) is the central trade association of the American textile industry, representing about 85 percent of the domestic industry for the spinning, weaving, knitting and finishing of wool, cotton, silk and man-made fibers. ATMI provides governmental, economic, international trade, occupational safety and health, statistical, public relations and other services to the industry. This industry represents a major industrial segment of the nation's economy with approximately 850,000 employees which are 47 percent women and 23 percent minorities, both of which are well above the national average for all manufacturing.

At the outset, Mr. Chairman, ATMI fully supports the national goal of water quality which provides for the nation's waters to be fishable and swimmable by 1984. The industry has been in compliance with the Best Practicable Technology regulations established by the Environmental Protection Agency in 1974 and the recently promulgated 1984 Best Available Technology Requirements (BAT). The industry's compliance with both of these requirements demonstrates its commitment to our nation's clean water objectives.

While ATMI does not seek legislative changes to the Clean Water Act this Congress, we are pleased to have the opportunity to review and provide comments to S. 431 which you and Senator Jennings Randolph introduced on February 3, 1983.

ATMI concurs with the subcommittee's view that only a limited number of substantive changes are warranted. However, we are concerned that some of the amendments proposed in S. 431 will only exacerbate the existing problems -- an overly cumbersome regulatory process and failure to assess progress made to date. ATMI's primary areas of concern lie in the proposed amendments to the water quality standards and pretreatment program. These two issues will be the focus of address in this statement.

Water Quality Standards

Section 6 would require that state water quality standards "maintain as a minimum use the designated use existing on January 1, 1983". ATMI believes such an inflexible approach is unwarranted. While we are aware of the controversy surrounding EPA's proposed revision to these standards (F.R. 49234, October 29, 1982), this amendment would not only negate the proposed regulations, it would be more restrictive than existing law and would totally eliminate the Agency's ability to re-evaluate existing standards to incorporate new data as it becomes available. It is poor legislative policy for Congress to adopt such an inflexible approach.

ATMI does not advocate changing the Act's goals. However, mandating that a standard be kept regardless of its merit will not foster greater achievement of these goals. It has been well documented that the existing standards were established with inadequate information and insufficient data. We and all reasonable people would, we believe, reject the assumption that once a designation has been adopted it can never be adjusted up or down as better information becomes available.

Given the controversy surrounding the proposed rule, we believe a closer evaluation of the proposal is warranted. EPA's proposed changes are modest and reflect the agency's attempt to utilize the experience gained since the program began ten years ago. In 1972, for example, there was limited stream data available, and neither the states nor EPA had experience in water quality setting. States were forced to rely on EPA guidance - the Red Book Criteria - which was the result of only laboratory tests and never subject to peer review. Given EPA's policy of presumptive applicability, and the states' lack of resources to challenge the criteria, they were generally adopted regardless of whether or not they reflected local water quality conditions. More than enough case studies have been submitted to demonstrate where these standards are not reflective of local stream conditions. The question is not who is to blame, but what is the best way to correct these errors. The maturation and implementation of the NPDES program and the states' experiences over the last decade have provided the states with the necessary resources to review and revise their water quality standards in a technically sound fashion.

It is also important to note what the proposal does not allow. The proposal does not allow existing stream uses to be altered once they have been met. Further, it prohibits modifying or reclassifying designated uses if they can be attained by implementing technology-based controls or if the revision would result in impairment of downstream uses. Finally states are not required to modify existing criteria, standards, or designated uses. We strongly support these restrictions and reject the contention that the limited flexibility would allow widespread degradation of water quality.

Examples of where we believe changes to designated uses are appropriate include situations where natural background pollutant levels or physical limitations in the water body make the uses unattainable. In other cases, designations need modificaton to allow for seasonal variance within particular stream segments.

For these reasons we believe the proposed amendment is unreasonable and strongly oppose its adoption. If Congress wishes to provide meaningful mid-course corrections it should reassess the history of the water quality standards and the progress made to date. Further, while changes to EPA's proposal may ultimately be warranted, Congress should not take action until the Agency has had an opportunity to analyze and make the necessary changes through the proper rulemaking procedures.

Pretreatment

Sec. 7 requires the Administrator, within 60 days of enactment, to list all pollutants covered by categorical pretreatment standards, develop guidelines

on frequency of monitoring, and determine the necessity of establishing numerical limits as substitutes for the categorical standards for each of the pollutants listed.

We believe neither the approach nor the arbitrary deadlines are reasonable. Mandating technical standards within an unreasonable time frame has already been tried and failed. The original Clean Water Act required the Administrator to publish a list of all toxic pollutants within 90 days and propose effluent standards for the listed pollutants within 180 days. The Agency's failure to comply with the unreasonable deadlines resulted in the NRDC consent decree and categorical standards. Further, the Agency is still required by the Consent Decree, paragraph 12, to "identify and address toxic problems left unsolved by the categorical approach."

We are sympathetic with Congress's concern over the delays in implementing categorical standards. However, we do not believe EPA can reasonably be expected to determine the need for numerical limits until categorical standards have been implemented.

We also question the urgency given the Congressional findings on the degree of toxic removal achieved by the application of BPT. The House Public Works and Transportaion Subcommittee (Committee Print 96-71) found that, "...to a degree not anticipated, the conventional secondary treatment technologies employed by municipalites and many industries have succeeded in removing most of the priority toxics in a highly efficient manner."

Rather than adopting amendments which will result in even further complications and problems in an already proven unworkable concept, Congress should modify this program completely. ATMI continues to believe that the Federal Pretreatment Standards cannot be justified. They fail to adequately consider the amount of removal of industrial pollutants by POTW's. The result is costly redundant treatment by industry and POTW's which directly contradicts Congressional intent to encourage joint treatment. The program should be restructured to allow municipalities to establish locally designed pretreatment programs based on documented problems with State overview to insure that water quality criteria and NPDES permit limits are met.

In addition to the problems we noted concerning numerical limits, S 431 fails to allow municipalities the flexibility they need to manage their own program. For example, paragraph (D) under Application requires the POTW seeking an alternative program to design and carry out a sampling and monitoring program to ensure continued compliance. A mandatory program will increase the POTW costs which will be passed on to industry. Industry should be given the option of self-monitoring to assure cost effective data collecton where monitoring programs are proven necessary. A second example of the restrictiveness of the proposed amendments is Sec. 307(e)(2) which allows a one-time 120 day application period for POTW's seeking to implement alternative pretreatment programs. As POTW's come into compliance with secondary treatment standards, they should not be precluded from applying for an alternative program because of an arbitrary deadline.

The American Waterways Operators, Inc.

Executive Offices

1600 Wilson Boulevard
Suite 1000
Arlington, VA 22209

Tel. 703 841-9300

Joseph Farrell
President

April 19, 1983

Honorable John H. Chafee
Chairman, Subcommittee on
Environmental Pollution
Environment and Public Works Committee
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The American Waterways Operators, Inc, the national trade association of the inland and coastal barge and towing industry, wishes to take this opportunity to submit comments on Section 404 of the Clean Water Act and respectfully asks that these comments be included in the subcommittee hearing record on amendments to the Clean Water Act.

The barge and towing industry plays a major role in transporting bulk raw materials and manufactured products necessary to the economic welfare of our nation, bringing direct service to 41 states on more than 25,500 miles of navigable waterways. The industry transports large quantities of energy products, about 40 percent of each year's annual grain for export, building materials, fertilizers, chemicals, and iron and iron and steel products. If we are to continue to serve the nation, our industry must rely on a first-class water transportation network capable of meeting shipper needs.

As we have stated in the past, we support the attainable goals of the Clean Water Act, but do not believe that Congress, in enacting Section 404, intended to hold up development for years due to the delays and conflicting jurisdictional authorities which have been created by Section 404.

The industry has encountered significant difficulty when attempting to obtain Section 404 permits, primarily in three areas:

A. Escalation in the amount of paperwork required to file for and to complete processing of the permit;

B. Amount of time necessary to complete the permitting process. In the Upper Mississippi River area, barge lines commonly prepare complex environmental impact statements for the most routine fleeting permits. If there is any controversy surrounding the proposed site, it is not uncommon for processing to take years.

C. Contributing to the delay and expense of obtaining a permit for fleeting or other activities in "wetlands" areas is the number of agencies and interest groups that have become involved in the permitting process. It is not unusual to have the U.S. Environmental Protection Agency, the Fish and

Wildlife Service and the Department of the Interior, etc., comment on permit requests, as do state conservation departments, departments of natural resources and departments of transportation. Furthermore, local groups such as the Izaak Walton League and Sierra Club are frequent participants in permit decisions.

The attached list, entitled Government Authority and Responsibility for Commercial Navigation - Upper Mississippi Region, compiled by the State of Minnesota, provides a graphic example of the overlapping government authority in water management which has been encouraged in Section 404. *

On the federal level alone, this list includes the Departments of Agriculture, Commerce, Defense (Department of the Army - Corps of Engineers), Energy, Health and Human Services, Housing and Urban Development, Interior and Transportation. Independent federal agencies, such as the Environmental Protection Agency, Federal Emergency Management Agency, Interstate Commerce Commission, also have jurisdiction, along with the Office of Management and Budget and various cabinet councils and special committees.

The list compiled by the state of Minnesota identifies seven governmental authorities at the interstate level, seven at the intrastate level, 16 at the state level, and 13 at the local level.

The Corps of Engineers' recent administrative revisions to the 404 permit process have assisted in easing delays; however, these revisions do not go far enough.

The expense encountered by industry due to the extended permitting process is substantial. The uncertainty of ultimate project success, coupled with the cost of environmental impact statements and redundant hearings and, in many instances, litigation, has resulted in a strong deterrent to entering into the permit process. Add to that the additional costs because of today's high interest rates and industry soon reaches the economical point of no return where it is no longer feasible to attempt certain projects.

AWO members support reform of Section 404, and specifically, seek clarification of Subsection (t), which states, "Nothing in the section shall preclude or deny the right of any state or interstate agency to control the discharge of dredged or fill material in any portion of the navigable waters within the jurisdiction of such state, including any activity of any federal agency, and each such agency shall comply with the state or interstate requirements, both substantive and procedural to control the discharge of the dredged or fill material to the same extent that any person is subject to such requirement. This section shall not be construed as affecting or impairing the authority of the Secretary to maintain navigation."

Section 404(t) is vague and has been subject to conflicting interpretations that have allowed the states to overrule the Corps of Engineers and restrict its dredging activities. In discussing the intent of this section, former Chairman of the House Water Resources Subcommittee, the Honorable Ray Roberts of Texas said on the House floor, Dec. 15, 1977, "...for example, with regard to the day-to-day dredging of the ports of Los Angeles and Long Beach, this provision means that the Corps of Engineers is expected to make all reasonable efforts to comply with state requirements. However, where these requirements cannot

*The list referred to has been retained in the committee files.

reasonably be met, the Corps of Engineers has the authority to, and indeed is expected to proceed with measures to maintain navigation."

We respectfully ask you, Mr. Chairman and the distinguished members of this subcommittee, to address the need for reform of Section 404, and would be happy to provide any background information which may be of assistance.

We appreciate the opportunity to submit our views.

Sincerely,

Joseph Farrell

Joseph Farrell
President

Attachment

cc: Members, Subcommittee on Environmental Pollution

Statement of

The Associated General Contractors of America

Submitted to the

Subcommittee on Environmental Pollution

Committee on Environment and Public Works

United States Senate

May 6, 1983

On the Topic of

Clean Water Act

AGC is:

* More than 32,000 firms including 8,500 of America's leading general contracting firms responsible for the employment of 3,400,000-plus employees;
* 112 chapters nationwide;
* More than 80% of America's contract construction of commercial buildings, highways, industrial and municipal-utilities facilities;
* Over $100 billion of construction volume annually.

The Associated General Contractors of America (AGC) represents more than 32,000 firms including 8,500 of America's leading general contracting companies which are responsible for the employment of more than 3,400,000-plus employees. These member contractors perform more than 80 percent of America's contract construction of commercial buildings, highways, industrial and municipal-utilities facilities.

We appreciate this opportunity to comment on the reauthorization of the Clean Water Act, and commend the Committee for its interest and commitment to the environment. We believe the existing law is fundamentally sound and commend the Subcommittee for seeking only a limited revision of the Act. However, there are additional issues not covered in Senate Bill 431, which AGC believes should be considered. AGC supports additional refinement because statutory flaws in procedures remain which tend to obstruct implementation. We refer to Section 404, the Dredge and Fill Permitting Procedures. The Section 404 permitting process has been expanded far beyond its original intent. AGC supports the regulatory changes that are being implemented through the Office of the Assistant Secretary of the Army for Civil Works and believes that these changes will greatly improve the permitting process. However, statutory language is needed to specifically define which waters are to be covered by the Act, to identify the Corps of Engineers jurisdictional authority and to bring more balance into the permit decision-making process.

In addition to establishing the Corps jurisdiction, we recommend statutory adoption of the Corps' proposal for use of nationwide

permits. This proposal will allow for permits to be issued on a national basis for categories of activities which are similar in nature and have only minimal environmental impact. Much of the criticism that has been leveled at the existing 404 permitting process is that it has expanded its coverage over activities that were never intended in the Act and that even the most minor projects are covered by its scope. In addition, the process itself takes an exorbitant amount of time from the initial request for a permit until one is finally issued. Many of these problems would be eliminated by going to a nationwide permitting system. Smaller projects that create no or minor environmental impacts would likely be covered under the blanket permit and, therefore, work could proceed on schedule.

The Section 404 permitting process is an example of legislation which was proposed and enacted with the best of intentions, but which now is too often used as a tool to bring to a halt the wheels of progress. Since the 1975 District Court decision in the NRDC v. Callaway case, the 404 permitting process has been used as a delaying mechanism on virtually all development which is proposed on or near water. The strategy has been to attempt to require any entity which is interested in moving earth, almost anywhere, to obtain a 404 permit. This strategy has worked far too often; once the permit is required, the process is so cumbersome, time consuming and expensive that many interests abandon plans for development rather than face this crucible.

The best way to stop this ever expanding intrusion into the state and local government decision process is to limit the requirement for federal 404 permits to navigable waterways. Such a change would still provide needed protection but would recognize the jurisdiction and responsibility of states to exercise their authority in these matters. Limits must also be placed on which federal agency has lead responsibility in the 404 process. As the process now stands there are too many levels of authority involved and too many areas for conflict. Many of the regulatory proposals will reduce these problems but there is still a need for the legislation to narrow the line of authority. Under current law the Environmental Protection Agency has the authority to override many Corps decisions on 404 permitting. This is one of the major reasons that the process has become so lengthy and cumbersome. The Corps has demonstrated its ability to bring its expertise in waterway administration to the permitting process. Existing requirements for public notice and hearings assure that there will be adequate oversight on Corps decisions. Therefore the role of EPA should be greatly reduced in the 404 process.

The current 404 permit decision making process is not in keeping with the traditional cost-benefit analysis which is the basis for all other federal decisions relative to water resource development. Before the Corps of Engineers or any other federal water development agency can undertake the construction of a water project they must determine that the benefits resulting from the project are in excess of the costs to be incurred. In making such a

determination, factors, such as economic, energy and resource development as well as environmental considerations are all weighed to be sure that the true impact of a project is known. This same type of process is not followed in the 404 process where environmental impacts are almost exclusively given consideration. The Corps of Engineers has been performing cost-benefit analyses for years and is expert in looking at the various factors that should be considered. AGC suggests that as part of the 404 permit process, the Corps be allowed to justify its decisions based on the traditional cost-benefit analysis.

Over the past few years AGC has urged the federal government to reevaluate its role in the 404 permit decision-making process. AGC believes that federal involvement has grown to an intolerable degree and should be returned to a more reasonable level. The current proposal to limit federal involvement in wetlands development, amended as suggested, should be put into practice as soon as possible.

19-871 O—83——61

Association of State and Interstate Water Pollution Control Administrators

May 9, 1983

The Honorable John H. Chafee
U.S. Senate
Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Chafee:

The Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) is pleased to submit, for the record, testimony on Senate Bill 431 and the reauthorization of the Clean Water Act.

As you know, States manage and implement the vast majority of the national water quality programs. States, therefore, have a large stake in reauthorization. As the front-line managers, they are uniquely qualified to speak to the issues involved. Although it would have been desirable, in that context, to more closely examine the issues from the State perspective, ASIWPCA wants to express our deep appreciation for the opportunity to participate on the Water Quality Standards panel.

We also want to take this opportunity to compliment the Committee and the staff on the hearings. The substantive quality of the dialogue was outstanding.

The Association and its 56 member States and Interstate Agencies look forward to working with the Committee in accomplishing Clean Water Act goals and objectives.

Sincerely,

J. Edward Brown
President

Hall of the States • 444 North Capitol Street, NW, Suite 330 • Washington, D.C. 20001 • (202) 624-7782

Association of State and Interstate Water Pollution Control Administrators

ASSOCIATION
of
STATE AND INTERSTATE
WATER POLLUTION CONTROL ADMINISTRATORS

Clean Water Act Reauthorization
Testimony

before the
Senate Committee on Environment and Public Works

April, 1983

Hall of the States • 444 North Capitol Street, NW, Suite 330 • Washington, D.C. 20001 • (202) 624-7782

ASIWPCA
Comments before the Senate Subcommittee on
Environmental Pollution

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Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) Comments before the Senate Subcommittee on Environmental Pollution

PART I. INTRODUCTION

The Association appreciates this opportunity to participate in the reauthorization of the Clean Water Act. The Association commends the Committee for its interest and commitment to the environment.

As professional managers of State Water Programs, ASIWPCA is firmly committed to the environmental objectives set out in the Clean Water Act. The Association is a national non-partisan organization of the State officials who, on a daily basis, implement the Clean Water Act. All 50 States, 6 Interstate Agencies, 3 territories, and the District of Columbia are represented. In their capacity as program managers, States have the benefit of more than 10 years experience implementing the National Water Quality Program.

A. SUMMARY HIGHLIGHTS OF ASIWPCA RECOMMENDATIONS

Water Quality Standards -- States strongly support attainment of reasonable water quality goals and believe current law is adequate in this regard. States need flexibility to upgrade Water Quality Standards were they are attainable and to acknowledge where this is not the case if Standards are to provide a rational basis for decision making.

Toxicity Elimination and Management Strategy -- A National technically sound process should be established for assessing and controlling toxicity on a facility specific basis. It should be a biologically based protocol to ensure expeditious, adequate protection.

§106 -- ASIWPCA supports the Senate Committee maintenance of the $75 Million authorization level.

Pretreatment -- The provisions of Senate Bill 431 should be broadened so more communities with good local programs can develop alternatives to the Federal approach. States must have a partnership role in developing and approving equivalent programs.

Compliance Deadlines --

- industrial compliance with BAT should be required no later than 3 years after effluent guideline promulgation. This will greatly enhance program credibility and effectiveness.

- the §301(i) deadline extension should be expanded to cover all municipalities. By July 1985, municipalities should specify how and when compliance will reasonably be achieved.

Partial Delegation -- ASIWPCA supports Senate Bill 431 provisions on partial delegation.

Permit Life -- NPDES permit life should be extended up to 10 years to more efficiently use available resources.

Penalties -- Any expansion of Federal law should not jeopardize approved State delegations. US EPA penalties should be applied only where the State has not acted and has received adequate notice.

Construction Grants -- Municipal wastewater treatment remains the major challenge to further progress toward Clean Water Act goals. A sustained level of Federal committment is important in that effort.

B. A DECADE OF PROGRESS

The 1972 Amendments to the Clean Water Act made sweeping changes in National policy on industrial and municipal wastewater control, striking a balance between water quality and technology based programs. That strategy, 10 years later, continues to be effective.

In the last decade, tremendous strides have been made in water clean up. Recognizing that this Committee is aware of the December 1982 Lou Harris and Associates report, "A Survey or American Attitudes Toward Water Pollution", we are encouraged to note the results indicate a majority of the public believe State and local levels of government will provide stricter enforcement of water pollution laws.

As many States have demonstrated over the years, State laws and procedures enable us to move more swiftly with enforcement action against polluters. ASIWPCA can assure the members of Congress and the public of a continuing comment to the Clean Water Act. The States have demonstrated their support of and capabilities to carry out a strong clean water program. The following facts illustrate these points:

- Except for limited stream segments and water bodies, the Nation's waters are fishable/swimmable

- States now manage over 70% of the National Water Program

- Pollution loadings have been substantially reduced:

  -- in industry ... 69% for BOD
  ... 80% for suspended solids
  ... 80 - 93% for heavy metals

  -- in municipalities ... 57% for conventional pollutants.

- Billions have been invested by taxpayers and industry in water pollution control

The Association believes that this progress in maintaining and enhancing the quality of our nation's waters is in large part attributable to the State/Federal partnership established in the Act.

C. THE CLEAN WATER ACT -- THE NEXT DECADE

The Association believes the existing law is fundamentally sound and commends the Subcommittee for a limited and focused Senate Bill 431. However, there are additional issues not covered in Senate Bill 431, which the Association believes should be considered. The Association supports additional refinement because statutory flaws in process and procedures remain which tend to obstruct implementation :

- The National program is strangling in red tape

  - Over 50% of NPDES permits have expired and are backlogged due to:

    ...overly burdensome requirements

    ...repeated delays in BAT effluent guideline promulgation.

  - The National Pretreatment program is at a virtual standstill.

- Despite the public's concern, there is currently no National strategy for eliminating toxicity

We have learned a great deal since 1972 about pollution, abatement/control, and effective management techniques which is invaluable in making these mid-course refinements. As States came before this Committee in 1972, they were admittedly the reluctant bride. Since that time, however, state water programs have blossomed reaching substantial levels of sophistication and effectiveness.

Part II. STATE WATER QUALITY STANDARDS

A. BACKGROUND

The State's role and responsibility in establishing Water Quality Standards is an important aspect of the Clean Water Act's State/Federal partnership. Since 1972, the States have gained more than 10 years experience in water quality management using technology-based effluent requirements and Water Quality Standards. Substantial data has been accumulated in the process on developing defensible, credible Water Quality Standards.

Water Quality Standards are not goals but are enforceable requirements. The Association firmly believes that if we continue to implement the goals and objectives of the law in a reasonable, practical way, the American people will be willing to pay for clean water. As this Committee recognized in the 1981 Amendments (P.L.97-117), there is a great deal of standards work which remains to be done.

- Standards were initially established without adequate information as to whether or not they made any sense and very frequently absent good data.

- Congress and the public demand efficient investment of construction grants funds

- Sound defensible standards require significant time and resources to develop.

Recognizing the importance of Water Quality Standards to effective State management of the water quality program, ASIWPCA established a task force in 1979 to address the issues. Working with the Carter Administration, ASIWPCA and US EPA jointly reviewed existing Water Quality Standards regulations and developed specific recommendations for improvement. The ASIWPCA initiative was completed early in the Reagan Administration, with the unanimous membership adoption of a position on Water Quality Standards in August 1981.

B. STATE POSITION

The ASIWPCA position provides that Federal Water Quality Standards regulations must be revised based on these principles:

- States (and Interstate Agencies) have the primary role in establishing standards

- State adopted standards should be presumed protective of water quality -- the burden of proof for disapproval should be on US EPA

- National policy should be uniformly applied among the ten US EPA Regions

- US EPA must assure interstate compatibility and compliance with the Act.

- US EPA has a vital role in providing technical information and coordination of Federal interests

- Water quality and quantity are important factors to consider

In addition, ASIWPCA has worked closely with the National Governors' Association to develop policies on various aspects of the Clean Water Act program. In this cooperative effort, NGA also supports continued commitment to a strong clean water program. One portion of NGA policy addresses Water Quality Standards as follows:

> Water Quality Standards, including State variance procedures, should be adopted by State processes. EPA review and approval should be limited to assuring protection of public health and the compatibility of standards on interstate streams. (D-26)

The ASIWPCA position should be interpreted so as to:

- Support technology based effluent requirements

- Allow States to develop and implement more stringent requirements

- Continue a strong Antidegradation policy to assure program momentum and prevent "pollution havens"

- Protect downstream and interstate designated uses

- Recognize the State's authority to identify priority water bodies and allocate resources accordingly

- Provide better procedures for State determination of water uses, consistent with language of the Act "... wherever attainable."

- Implement a uniform, equitable US EPA review process for use designation among all Regions. Seasonal variations will help States protect existing uses while still improving water quality through funding to more POTWs.

- Assure protection of supportable aquatic communities

- Develop site specific criteria using the latest data and scientific procedures that reflect local water body conditions and uses

- Recognize the need and value of mixing zone and low flow policy

- Urge US EPA to provide equitable technical assistance in site specific analysis, including acceptance of State advanced waste treatment determinations

- Prevent any reduction in effort or commitment to maintaining improvements that have been so costly and difficult to achieve under the Clean Water Act.

C. SENATE BILL 431

Senate Bill 431 freezes designated uses as of January, 1983. The Association understands the Committee's concern about the future of the water program and the desire to achieve the goals of the Act. However, we are concerned that, without modification, the proposed provision on Water Quality Standards could undermine the implementability and long term credibility of the Clean Water Act.

In most cases designated uses are appropriate but there are other situations where this may not be the case -- for example, uses may to too vaguely defined; or there may be natural background levels, irretrievable man induced conditions, or issues regarding the affordability of advanced waste treatment. This is frequently true for small communities on small streams.

While ASIWPCA has urged some changes to the existing Federal regulation to more accurately reflect the State role in the Clean Water Act partnership (and we must complement the US EPA on their efforts to provide the necessary flexibility), the ASIWPCA position has been misinterpreted as fully supporting the US EPA proposed regulations.

ASIWPCA and the individual States do not support weakening the Water Quality Standards or backing away from the Clean Water Act goals. A review of more than 30 State responses and the ASIWPCA position indicates US EPA's proposed regulatory changes need significant modification. Unfortunately OMB and US EPA did not propose regulatory changes wholly consistent with the earlier ASIWPCA recommendations.

We have encouraged retaining the existing antidegradation requirements. We do not consider cost benefit assessment appropriate to address in US EPA Water Quality Standards regulations. Furthermore, we do not believe that designated uses should be changed where such uses are attainable by the installation of technology based effluent requirements.

During this hearing, the Committee quoted from written State comments to US EPA on the proposed regulations. Complete copies of those States' comments are attached for the record. A close reading would support the analysis outlined above.

D. ASIWPCA RECOMMENDATION

1) Some limited changes in existing Water Quality Standards regulations are necessary to improvement program administration.

2) Congress, in their oversight role, is encouraged to better focus Water Quality Standards issues and assure sound program administration. However, ASIWPCA feels that legislation at this time is not necessary or desirable.

However should the Congress find otherwise, an exception to Section 6 of Senate Bill 431 should be provided where the proponent State determines for example that the standards or designated uses in effect on January 1, 1983 need further definition or were based on incomplete or inaccurate information.

3) Congress and US EPA must recognize that Water Quality Standards issues involve pretreatment and municipal wastewater treatment. Most industry has installed modern water pollution control facilities-- the remaining task involves a limited number of industries. Therefore, the implementation of a realistic pretreatment program and municipal wastewater treatment remains the major challenge to further Clean Water Act progress.

4) Modification of the Water Quality Standards regulations, in summary, should:

- Continue a strong Antidegradation policy to assure momentum and protection of downstream or interstate designated water uses as well as the protection of waters of specific interest and value in a particular State.

- Assure criteria protect the aquatic community supportable after installation of technology based treatment requirements.

- Use bioassay and biomonitoring to further strengthen criteria and support uses

- Recognize the importance and value of general policies, such as mixing zones and low flows

- Accommodate seasonal water uses and assure cost-effective allocation of construction grants funds

- Incorporate procedures to identify and reconsider designated water uses which may be inappropriate (e.g. seasonable uses, criteria modifications)

- Have uniform and equitable US EPA review procedures among all Regions for criteria, uses, and interpretation of Standards application. This is possibly one of the more needed changes.

PART III. STATE MANAGEMENT ASSISTANCE UNDER SECTION 106

A. §106 STATE MANAGEMENT ASSISTANCE

§106 State Management Assistance Grants is probably more fundamentally important to the National Water Program and the achievement of the Clean Water objectives than any other aspect of the Act. §106 is the glue providing the cohesiveness necessary for effective management. The cooperative State/Federal partnership created under the 1972 amendments depends upon each partner living up to the commitments as in any contractual arrangement.

§106 activities form the core of the National Clean Water Program and provide the funding for planning, Water Quality Standards development and implementation, NPDES permitting, pretreatment, compliance, enforcement, and monitoring. As Clean Water Act deadlines approach and the program grows in complexity, it becomes even more important that the States can count on sustained, adequate Federal support to the Nationally required program.

As this Committee is fully aware, federal mandated activities have increased over the decade to include implementation of pretreatment, development of more detailed Water Quality Standards, preparation of advanced treatment reviews, and implementation of NRDC toxics consent decree. The program shift from conventional to toxic pollution control has enormous resource implications. While total State contributions have doubled since 1972, there remains a continuing Federal interest in this National program.

ASIWPCA Recommendation

The Association commends the Committee for continuing to recognize the importance of Section 106 State management assistance to the National Water Quality program. We support Committee's effort to maintain the current authorization level of $75 Million.

We are all aware that State management needs are significantly greater than this amount, but we recognize too the fiscal crisis being experienced throughout this country. For this reason, the Association and the National Governors' Association (NGA) urge that Section 106 funding be maintained, at minimum at the FY82 level.

B. IS SECTION 205 A REASONABLE ALTERNATIVE TO SECTION 106?

The Administration has suggested less §106 funding is needed because set asides under Section 205 can offset the 56% reduction proposed by the President. ASIWPCA disagrees:

a) 205(g) funds are necessary to meet state obligations under delegation agreements in the construction grants program.

- 205(g) funds available to offset reductions in Section 106 funding are minimal (after meeting Construction Grant needs)
- Non-delegated States have no 205(g) funds (i.e. FL, VA, NM, OR, LA, and IN)
- Some 205(g) funds must be reserved. Recognizing this is an unobligated amount in this account, one must remember that State management is necessary after phasedown of the National program, if a federalism swap occurs or funding is unsteady.

b) 205(j) funding generally cannot support §106 activities

- 205(j) is targetted by law for general planning, particularly in local communities
- Most Section 106 activities are not eligible, e.g. permitting, compliance and enforcement
- Even if States were permitted to utilize 205(j) money for 106 activities, there would be problems because only 10 States have received 205(j) grants. In contrast, virtually all FY82 and 83 §106 grants have been awarded.
- 205(j) funding was intended and is needed just to implement the 1981 Amendments -- specifically:

  Water Quality Standards review and revision of advanced treatment reviews.

ASIWPCA Recommendation

Set asides under §205(g) and 205(j) of the Act have purposes separate and distinct from the activities supported by §106. As such, set asides under §205 cannot offset reductions in §106 funding without seriously endangering Title II objectives.

C. POTENTIAL PROGRAM COVERAGE BY PERMIT FEES

Permit fees are under wide discussion as a substitute for reduced Federal funding. A number of States have fee systems for water permits. In the overwhelming majority of these States, the revenues are nominal, going to the general fund. NPDES delegated States are at a competitive disadvantage in developing fee systems in the future because there is no comprehensive system at the Federal level for non-delegated States.

There is a legitimate role for fees in the water program. However, such systems are often complex, and have management disadvantages which merit further study. Administrative costs can be high. Fee systems can be a modest supplement to existing State/Federal sources. Delaware's NPDES fees will cover about 10% of the operating budget filling the gap between existing funding levels and rising operating costs.

Fees, as an offset for the FY84 Presidentially requested 56% reduction in §106 funding, are totally unrealistic because of time and administrative constraints. The recent decision by the State of Michigan to eliminate fees entirely indicates fee systems may be difficult to establish and maintain in these difficult economic times.

The concept of user pays is attractive and supported in many industrial (as opposed to municipal) sectors assuming the costs are related solely to the resources needed to process permits. But there are those constituencies adversely affected -- small businesses and small communities -- which are least able to pay. NPDES program dependence on permit fees also raises an appearance of conflict of interest. In many states, prohibitions exist that prevent these fees from being utilized by the environmental agency -- similar to to the concern about the police force keeping traffic ticket receipts.

ASIWPCA Recommendation

Permit fees in the Federal and State water program should be studied nationally before considering Federal legislation. Impacts of any Federal initiative on States should be carefully considered. The States should be consulted in the process.

PART IV. MUNICIPAL WASTEWATER TREATMENT -- A CHALLENGE OF THE 1980's

Municipal wastewater treatment will be a major challenge of the next decade. This is not to say that industrial clean up is unimportant, but that municipalities lag much further behind in meeting their minimum responsibilities. As this Committee is fully aware, construction grant needs far exceed the Federal funding available, Water Quality Standards require substantial level of treatment, compliance deadlines are extremely ambitious, and adequate pretreatment must be instituted. Water Quality Standards are the management tool in municipal clean-up which States use to:

- structure the meaningful priority list required by P.L. 97-117
- allocate the limited Federal construction grants funds on the basis of true water quality need as required by P.L. 97-117
- establish reasonable, affordable clean up requirements for communities, this is particularly a problem in smaller communities on small streams

This is not an academic concern -- municipal wastewater treatment needs are astronomical and obviously cannot be achieved overnight. Just in the States represented on this Committee, needs are substantial:

State	Total Needs Category I - IV*	(% of Total FY83-85 BA)**	Total treatment Needs Category I - II***	(% of Total FY83-85 BA)
Vermont	259	(14%)	120	(30%)
Rhode Island	495	(10%)	207	(24%)
WestVirginia	1,449	(8%)	457	(25%)
Maine	585	(10%)	200	(28%)
New Hampshire	966	(8%)	325	(23%)
Tennessee	1,859	(6%)	623	(17%)
Wyoming	127	(29%)	99	(36%)
Minnesota	1,160	(4%)	704	(6%)
South Dakota	160	(23%)	123	(29%)
Idaho	351	(10%)	172	(21%)

New Mexico	251	(14%)	151	(24%)
Texas	3,971	(7%)	1,971	(15%)
North Dakota	45	(80%)	31	(116%)
Colorado	509	(18%)	328	(27%)
New York	11,674	(7%)	4,007	(20%)
Montana	121	(30%)	47	(77%)
50 State Total	83,000	(9%)	37,000	(20%)

* Includes year 2000 needs for treatment, interceptors, collectors, infiltration/inflow, and rehabilitation.

** Needs as a percentage of the FY 83 - 85 budget authority, i.e. the the States annual allotment under a $2.4 Billion appropriation

*** Includes year 2000 needs for treatment only

PART V. TOXICITY ELIMINATION AND MANAGEMENT STRATEGY (TEAMS)

The combination of traditional State Water Quality Standards, Federal BPT based controls, and NPDES permit requirements have generally been adequate to control "conventional" pollutants. This baseline of technology-based protection also appears to be providing some control over "toxics".

With the 1982 revisions to the NRDC consent decree, US EPA has begun to promulgate significant numbers of BAT guidelines. However, many questions are being raised about the long-term adequacy of these requirements with respect to meaningful control of toxicity. Specifically, are existing control efforts sufficient -- i.e. are we controlling toxicity?

ASIWPCA has long maintained that compliance with technology-based guidelines and use of Water Quality Standards, while certainly a necessary part of the National program, may not successfully result in the actual elimination of adverse impacts from toxicity.

The National Clean Water Program has progressed to the point where elimination of "toxicity" (not pollutants per se), under §101 (a)(3), is the next logical concern in the National forum. The Program needs a technically sound process for assessing and controlling toxicity on a facility-specific basis. Such an initiative requires a National mandate for maximum effectiveness. This mandate should provide positive direction for US EPA, the States, and NPDES permittees on activities necessary to achieve elimination of toxicity.

Water Quality Standards have only limited usefulness in controlling toxicity. Criteria for hundreds of organics will be difficult if not impossible to develop from a technical and resource standpoint. Such criteria cannot assure environmentally safe levels and toxic wasteload allocations are generally beyond the state of the art. The time required would only further delay elimination of toxicity. Therefore, additional mechanisms are desirable, as supplement.

The Association is deeply concerned that without a National strategy, we will fall even further behind in understanding and controlling toxicity. However, a massive retooling of the Act is not necessary or desirable. The problem can be dealt with in an orderly phased process consistent with the overall structure of the Act.

States want to work closely with the U.S. EPA to develop the front-end methods and guidance to control toxicity. Such a partnership will greatly expedite development and implementation. To ensure the toxicity elimination strategy is effective, research and development as well as technical assistance must be enhanced particularly in the areas of environmental toxicology, complex organics analysis, and industrial abatement technology.

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ASIWPCA Recommendation

The basic goals of the Act are properly aimed at protecting the "biological integrity of the Nation's waters". Prudent judgement calls for a biologically based protocol to ensure adequate protection is provided in the National program .

In addition to supporting full utilization of BAT requirements and Water Quality Standards, a Toxicity Elimination and Management Strategy (TEAMS)* should be incorporated into the National Clean Water program. Specifically, the Association recommends that the National Clean Water Program provide, by a date certain, for:

1) US EPA to establish procedures and methods for biological assessment of acute and chronic toxicity of effluent and receiving waters

2) US EPA to establish guidance on categories of industries and municipalities which may need to conduct biological toxicity assessments.

3) NPDES permittees to submit action plans for characterizing their effluent and conducting biological toxicity assessments

4) States to develop implementation strategies for eliminating toxicity from significant dischargers

5) NPDES permits to be revised specifying compliance with toxicity elimination (based on the permittee action plans and State strategies.)

6) US EPA to place additional emphasis on providing States special technical assistance and adequate toxics research and development

7) State participation in development of procedures, methods and guidance to implementing TEAMs.

* Specifics on the TEAMS' approach is attached as Appendix A.

PART VI. PRETREATMENT

Pretreatment was incorporated into the law to ensure indirect industrial discharges did not interfere with POTW operation, sludge management, or ambient water quality. ASIWPCA fully supports this effort and recognizes pretreatment is a necessary element of the National Water Program. States have a large stake in National pretreatment policy because we are responsible for managing the National program as well as developing and implementing many municipal programs.

A. THE PROBLEM

It is widely recognized at the National, States and local level that the current pretreatment program is unworkable. The Federal program is unwieldy and overly broad -- bearing little relationship to water quality need. As a result the Federal program has come to a virtual halt:

- Many communities do not have the time (given other responsibilities) or the resources to implement the more onerous Federal prescription -- a simpler approach would be adequate

- In the 6 years since the 1977 Amendments, US EPA has failed in its efforts to promulgate regulations for this complex program.

- By EPA's own admission, the pretreatment program dwarfs the NPDES program in size and scope, requiring the inclusion of many more sources and resulting, of course, in higher cost.

- The resources are not available.to manage such a complex program. Just at the State level, over $10 Million would be required.

In summary, the existing Federal program is actually a serious impediment to eliminating toxicity. The problem centers around process and procedures --not environmental objectives or requirements.

B. SENATE BILL 431

The Association commends the Committee for its reform efforts. Senate Bill 431 establishes a good framework for the pretreatment program. Your recognition of "equivalency," which has long been advocated by ASIWPCA -- that is that alternatives to the Federally prescribed approach are acceptable so long as they protect the environment -- is a major breakthrough in getting the Federal pretreatment program off dead center. The systemwide approach restores some order to an unmanageable situation.

In our view however, Senate Bill 431 criteria for equivalency are too narrow to provide the meaningful reform we envision as necessary. The net result may be further delay in developing pretreatment programs and meeting toxic control requirements. Specifically:

- Municipalities on a schedule to comply with secondary treatment by 1988 should be eligible for equivalency to assure equity. Some communities could lose out simply because US EPA has not redefined secondary treatment or approved their general pretreatment program.

- 180 days to develop a pretreatment program is too short considering technical, legal, jurisdictional, and political factors.

- States should be able to develop equivalency demonstrations individually or statewide for communities who do not or cannot independently proceed.

- Delegated States should be responsible for determining equivalency. Protracted administrative delays in US EPA delay clean up.

ASIWPCA Recommendation

Pretreatment should be required where necessary to protect POTW operation and the environment (in terms of effluent, water quality and sludge disposal). States and local governments should have flexibility in developing and implementing pretreatment programs, subject to US EPA approval. Specifically, the Clean Water Act should:

- expedite and complete US EPA's development of National categorical standards

- provide concurrently a 3 year period in which "equivalent" programs can be developed as an alternative to the Federal prescribed pretreatment program.

- allow States three years to demonstrate to US EPA which POTWs do not need a pretreatment program beyond conventional sewer use/user charge and NPDES controls

- continue to require States and POTWs to: obtain and maintain a baseline industrial survey; characterize POTW influent, effluent ,and sludge; and design local industrial monitoring programs.

In this way: full benefit can be obtained from the many effective local programs now in place; limited resources can be targetted where pretreatment is really necessary; wasteful administrative requirements can be eliminated; and program momentum can be maintained.

PART VII. COMPLIANCE DEADLINES

A. INDUSTRIAL COMPLIANCE DEADLINES

Industrial compliance with the Best Practicable Treatment (BPT) deadline has been very successful and resulted in substantial clean up for conventional and toxic pollutants. The same cannot be said for Best Available Technology (BAT) deadlines. The difficulties States had requiring BPT compliance by 1977 (because of delayed guideline issuance) will be much more pronounced for BAT unless legislative relief is provided.

ASIWPCA fully supports the institution of BAT to eliminate toxicity. However, the existing BAT compliance date is unrealistic Continued reliance on an arbitrary deadline jeopardizes the water program and damages the credibility and stability of the Act. It has been difficult, if not impossible, to establish a deadline which accurately anticipates the inevitable complex policy, administrative, and legal problems which arise and lead to delay -- arbitrary deadlines have not been an effective inducement to guideline issuance.

ASIWPCA Recommendation

BPT -- BPT should be maintained as the minimum national treatment requirement for industrial dischargers.

BAT -- Industry compliance with BAT should be required no later than 3 years after effluent guideline promulgation. Senate Bill 431 makes major progress in this direction.

BCT -- Water quality need should be the basis for going beyond BPT for conventional pollutants. The proven effectiveness of BPT in pollution abatement obviates the need for BCT across the board. More selective application of BCT will enable the States to make more cost effective investments in pollution abatement.

B. MUNICIPAL DEADLINES

The 1981 Amendments significantly reformed and redirected the national municipal wastewater treatment program. Special emphasis was given to reducing, over time, dependency on Federal funding assistance and to increasing local accountability for achieving attainable water quality objectives and technology requirements.

While the 1981 Amendments extended the municipal compliance deadline in §301(i) -- that extension applies to a limited number of those communities which need relief i.e., those which will receive Federal funding and finish construction by 1988. Obviously, the 1977 deadline for achieving secondary treatment is unrealistic for many of the communities not covered.

Committee action is necessary to ensure maximum progress for municipalities over the next 5 years. In good faith, all communities expected to participate in the Federal program, but changed circumstances will require major realignments in their planning.

ASIWPCA believes the legal obligations of local communities are very clear and should be maintained. Municipalities should promptly prepare a strategy for coming into compliance with the law. The reasonableness of any deadline will vary, depending on the immediacy of the water problem, availability of alternative funding, planning required and the construction needed. Therefore, no single deadline is appropriate. More flexibility on this point will greatly enhance the long term credibility and stability of the Act at the local level.

ASIWPCA Recommendation

Expand Senate Bill 431 to amend §301(i) to cover all municipalities requiring that:

- Municipalities formally complete planning and fiscal capability analysis by July 1, 1985 specifying how and when compliance will be achieved (with or without Federal funds).
- NPDES permits incorporate the above planning requirements and the resulting municipal strategy.
- Compliance be achieved at the earliest practicable date.

Part. VIII. WATER QUALITY MANAGEMENT PLANNING

A. PLANNING

Background

Planning has been fragmented and out of phase with the Act's mandates and national goals. The piecemeal history of uncoordinated plan development put the proverbial cart before the horse, instead of leading the way to logical, efficient water quality management.

Water quality management planning is found primarily in Section 208 and 303 of the Clean Water Act. However, municipal wastewater treatment project planning is authorized elsewhere under Title II and the 1981 amendments added Section 205(j) for water quality management planning. The inconsistency and fragmentation lead to several problems:

- failure to initiate Section 208 areawide planning until 1975, three years after passage of Act.
- initiation and completion of Section 303(e) basin plans before start up of Section 208.
- initiation of municipal wastewater facility planning before either areawide or basin planning was started.
- repeated changes in direction of Section 208 planning
- inadequate §208 resources for state and designated agency planning.
- absence of designated resources for §303(e) basin planning -- EPA required that §106 State program grant funds be used
- potential conflicts of planning requirements in CWA, RCRA, and SDWA, particularly with respect to groundwater.

Discussion

Section 303(e) -- the source of most State planning authority in the Act -- has not been used as effectively as it could have been. It is the position of ASIWPCA that the Clean Water Act planning requirements should be consolidated to create a State Water Quality Management Planning Process and Management Plan.

The Plan would include by reference all other Plans and Planning Reports required by the Act in addition to the requirements presently contained in Section 208(b). Delegation to local or areawide agencies can be authorized for certain planning functions at the discretion of the Governor, with oversight by the State Agency.

ASIWPCA Recommendation

To improve future water quality planning:

(1) consolidate "303(e), 205(j), and 208(a)-(i); clarify requirements to address future needs; remove completed requirements and processes which are no longer applicable;

(2) provide specific sources of funding for continuing water quality management planning; and,

(3) improve the planning relationships among CWA, RCRA and SDWA.

B. NONPOINT SOURCE CONTROL - PLANNING AND IMPLEMENTATION

Section 11 of Senate Bill 431 requires the EPA Administrator to study the effects and methods of controlling pollution from nonpoint sources and report the results of such studies to Congress not later than one year after the date of enactment of the Clean Water Act of 1983. ASIWPCA is sympathetic with others who have appeared before the Committee, questioning the appropriateness of another study. Should the Committee maintain the trust of Section 11, the Association would be pleased to provide input to the report.

Nonpoint source planning has been going on over five years years in many States.. During that time, we have learned that many rivers and lakes are adversely impacted by nonpoint sources. Incremental progress in abatement is being made with the assistance of the Federal government, local communities, and the private sector.

ASIWPCA Recommendation

By their very nature, nonpoint sources must be dealt with differently than point source discharges. Emphasis should be placed on controlling nonpoint source pollution using existing State and Federal law as well as cooperative arrangements. Section 11 also provides an opportunity to address these differences and to explore ways in which resources can be more effectively deployed to control pollution.

PART IX. OTHER PRIORITY CONCERNS

There are several aspects of the Clean Water Act, not addressed in Senate Bill 431, which the Association would call to the Committee's attention. Such measures would improve State management capability and expedite implementation:

A. NPDES PERMITS AND DELEGATION

The Association fully supports the Committee's recognition that partial NPDES delegation is in the best interests of the National Water Program. There is no question that the Clean Water Act is implemented faster with less cost to the taxpayer at the State level. US EPA should take full advantage of State willingness to manage NPDES program components. However in doing so, the law should not be interpreted or selectively applied to undermine that partnership.

As this Committee knows, institutional considerations in States (some with large numbers point source discharges) may preclude full assumption of delegable activities. We have every confidence that Senate Bill 431 will greatly expedite the program at reduced cost to the public.

The Association believes permit terms should be extended from 5 to 10 years to conserve and more efficiently use scarce resources. Of course, NPDES permits should continue to include reopener clauses allowing permit modifications for cause. (e.g. adoption of effluent guidelines, identifications of toxics problems, or process modifications). States would have ample opportunity in exercising their reopener perrogative to review discharger performance and related permit limitations.

It has been suggested that deminimous dischargers -- i.e. having minimal or no water quality impact --should be exempt from the Act. The Association recognizes the problem is a legitimate concern. Such sources can needlessly divert State resources from true water quality problems. Therefore, ASIWPCA would like to see this problem resolved but prefers, at this time, to pursue an administrative route in the NPDES program.

ASIWPCA Recommendation

The Association supports the Senate Bill 431 provisions for partial delegation. ASIWPCA also recommends extending NPDES permit life up to 10 years while continuing the policy of including reopener clauses in all NPDES permits.

B. PENALTIES

Proposals, such as Senate Bill 431, to expand US EPA's enforcement arsenal are developing at a time when increased emphasis is being given to delegating more responsibilities to the States. The Association appreciates the objectives of Senate Bill 431 in expanding Federal civil penalties. However, the "fallout" for NPDES delegated States (whose programs are well established and operational) should be carefully considered.

The proposed language could, without further clarification adversely affect NPDES delegations. Strong US EPA enforcement could encourage quick settlement by States of permit violations -- but it is equally likely that the possibility of later US EPA action will interfere with State implementation of the National program hindering clean up or correction of discharge violations. The potential for "double jeopardy" merits close attention.

ASIWPCA Recommendation

Expansion of Federal authority under §309 should not jeopardize existing approved NPDES State delegations. Congress should clarify that increased Federal penalties will not require changes in State delegated programs. Federal penalties should only be imposed when State has failed to impose appropriate sanctions and the State has received 30 days notice from US EPA of such finding.

C. FEDERAL FACILITIES

Further expansion of Clean Water Act exemptions for Federally owned facilities is unwarranted. The inequities of such an action, when municipal and industrial requirements remain in effect (and in fact are expanding) is obvious. Potentially unlimited discharges from government owned or operated facilities have substantial implications on the extent of conventional and toxic pollution.

ASIWPCA Recommendation

§313 contains adequate Federal facility exemptions. If the goals and objectives of the Clean Water Act are to be met, it is imperative that coverage be as broad and as uniform as possible.

D. DAMS

Recent reconsideration of the Clean Water Act's application to dams has centered around the issue of whether dams should be point vs. nonpoint sources. Although, recent court decisions resolved the issue in favor of the Administration, legislative action may be an issue.

The Association believes resolution in that context has little bearing on the ultimate issue -- Specifically, what is the appropriate process for protecting water quality from the adverse impacts of dams?

The NPDES process is not the appropriate avenue. A more expedient, effective mechanism is the State certification process under §401 and 404 of the Act. This process is ongoing and has been very effective in protecting water quality. ASIWPCA does not anticipate that application of this process to dams will adversely affect current workload. However, since the magnitude of these problems is not fully understood, further study is desirable.

Any effort to revise in Act's application to dams should not jeopardize the State's authority under §401 to assure that water quality requirements are met.

ASIWPCA Recommendation

Direct regulation of dams under the Clean Water Act should rely primarily on the §401 certification process and §404 to control water quality impacts. NPDES permits should not be required at this time. Congress should direct US EPA to study the nature of water quality problems associated with dams and recommend appropriate abatement techniques. Any changes to the definition of "point sources" or to §402(l) should be carefully structured so as to prevent any weakening of §401 provisions .

E. NEW SOURCE PERFORMANCE STANDARDS

Unpredictable and protracted delays in guideline issuance put new sources at a very real disadvantage in their facility and pollution abatement planning. Substantive changes between proposed and final guidelines are impossible to foresee as planning/construction commences. It is more equitable to apply new source performance standards after guidelines are finalized.

ASIWPCA Recommendation

New source performance standards should be applicable to facilities which are constructed after the publication of final guidelines by US EPA.

F. THERMAL DISCHARGES

Requirements of §316 were initially very difficult to implement. The frustrations this caused at the State and local level were significant and understandable. However, the Association believes, after much concerted effort, the program has become administratively more manageable for the States.

The Association appreciates the concerns some have raised with §316, but we believe changes in §316 coverage may disrupt momentum unnecessarily. The relationships between §316 and other requirements of the law are so complex and interrelated such that the extent to which any amendments to §316 could improve the overall process is unclear.

ASIWPCA Recommendation

Retain the current provisions of §316.

G. CLEAN WATER ACT GOALS

National goals of the Clean Water Act should be reasonably attainable. The 1983 deadline for achieving fishable/swimmable water quality is not achievable for some waterways, particularly because of municipal discharges. A more realistic deadline should be established consistent with projected construction grants funding and toxic effluent guideline promulgation.

The National goal in §101(a)(2) should be a long term, not an interim goal. States should have flexibility to establish any goals beyond this level, as needed or appropriate to preserve water quality and prevent degradation of high quality waters. US EPA must, in turn, support fully any goals adopted by States.

ASIWPCA Recommendation

Revise §101(a)(2) to read: "It is the National goal that, wherever attainable , a goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July, 1990."

Testimony Presented to The Subcommittee on Environmental Pollution of the Environment and Public Works Committee United States Senate

by

William R. T. Crolius
Vice President, Crane Co.
in
Behalf of CF&I Steel Corp.,
a Subsidiary of Crane Co.

Conclusions - Recommendations

Committee Chairman, Senator Stafford, has stated the "Goal of the Water Act (was) to attain fishable and swimmable waters by July 1983".

A. In recognition of those objectives, fairness dictates that any new legislation should recognize programs, in place, which have met or exceeded those goals and which continue to monitor and improve the system.

B. Legislation should take into consideration varying climatic conditions, state water rights laws and the requirement to conserve - not destroy - water as a crucial resource in arid areas.

Mr. Chairman:

My name is Rich Crolius. I am a Vice President of Crane Company, a leading manufacturer of building products and fluid controls. Our headquarters are in New York City.

Our largest subsidiary, CF&I Steel of Pueblo, Colorado, has asked me to bring to the attention of the committee our environmental success story. At the same time, our success has created a problem, which may not be unique to us, and which bears on these hearings.

CF&I Steel Corporation stands on the south side of the Arkansas River, in the southeast corner of the city of Pueblo. The river originates about 130 miles to the northwest of Pueblo, travels as a mountain stream through Chaffee, Fremont and Pueblo counties to Pueblo Reservoir west of the city. From that point, the Arkansas becomes a meandering plains stream through arid land eastward to the Kansas line.

In some dry seasons, the treated discharges from the city of Pueblo and CF&I represent the entire volume of the river water, which is so important for downstream municipal water supply, agricultural irrigation and minor recreational use.

Water in the Arkansas - as well as all other water in Colorado - belongs to the state. Users must have water rights and state permits, which require both quality and quantity of discharge. Arkansas water, largely from snow melt, is used over and over for a variety of needs. Water is a very precious commodity in an area of very light rainfall.

In the early 1960s, CF&I embarked on a modernization program. An important segment of that effort was - and continues to be - both air and water quality improvement. At that time, there was no Federal EPA nor were specific quality standards available. This program was

aimed at both cleaning up steel plant discharge and, also, maintaining quantity of water to downstream users.

Working with the State of Colorado (and with EPA after 1970), CF&I's water quality program took shape and by 1974, our waste water process facilities were in place. Since then, discharges back into the Arkansas River have met all state and federal standards. We have continued to monitor and improve this quality system.

Within the flow, from our treatment plant to our final river discharge, nine species of fish reside and the settling lagoons have become wildlife sanctuaries for land birds, water fowl, and small mammals.

With the CF&I discharge at present control limits, the river meets all water quality standards established for the several uses assigned by the State and Federal agencies to the Arkansas - these are municipal water supply, fishing, agriculture and recreation. We are proud of that success. Therein lies our problem.

The recent technology-based steel guidelines promulgated by the EPA in 1982 would require substantial revision to our present system. Additional technology will not improve Arkansas River quality. It will destroy, through added rapid evaporation, water which is badly needed downstream.

The best available technology defined by EPA is environmentally undesirable for the Arkansas River. We ask this committee to consider recognizing that in the instance of the Arkansas - and presumably in other steams which are clean, useful and attractive - any further technological requirement will be wasteful of resources, natural as well as material. Indeed, they may be environmentally counter-productive. Provisions should be made in the Act to exempt such situations.

Thank you for the opportunity to bring this unusual, but probably not unique situation to your attention.

Water Quality in the Arkansas River
East of Pueblo, Colorado - Table I

Item	Water Quality Standards Adopted by Colorado Water Quality Control Commission	Arkansas River Water Quality with current CF&I Controls	Arkansas River Water Quality with BAT Controls
Total Suspended Solids	25 mg/l	9.8 mg/l	17.5 mg/l
Oil & grease	Free from visable sheen (1)	3.04 mg/l (1)	3.54 mg/l (1)
Ammonia (N)	0.27 mg/l (2)	0.243 mg/l	0.162 mg/l
Cyanide, Total	0.07 mg/l	0.022 mg/l	0.029 mg/l
Phenol - Monohydric	0.5 mg/l	0.0028 mg/l	0.0008 mg/l (3)
Lead	0.05 mg/l	0.031 mg/l	0.019 mg/l
Zinc	0.35 mg/l	0.323 mg/l	0.11 mg/l
Salinity Standards Chlorides	250 mg/l	16 mg/l (4)	
Sulfates	2200 mg/l	160 mg/l (4)	

(1) NPDES Limit is 10 mg/l, which is the limit of measurement accuracy.

(2) Equivalent to 0.1 mg/l unionized ammonia at Arkansas River temperature and pH.

(3) Below the limit of detection.

(4) CF&I Effluent concentrations.

Statement of the Chamber of Commerce of the United States

ON: FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS (S. 431, S. 432)

TO: SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION OF THE SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

BY: DR. HARVEY ALTER

DATE: MAY 3, 1983

The Chamber's mission is to advance human progress through an economic, political and social system based on individual freedom, incentive, initiative, opportunity and responsibility.

The Chamber of Commerce of the United States is the largest federation of business and professional organizations in the world, and is the principal spokesman for the American business community. The U.S. Chamber represents more than 220,000 members, of which more than 216,000 are business firms, more than 2,600 are state and local chambers of commerce, and more than 1,200 are trade and professional associations.

More than 85 percent of the Chamber's members are small business firms having fewer than 100 employees. Yet, virtually all of the nation's largest industrial and business concerns are also active members. We are particularly cognizant of the problems of smaller businesses, as well as issues facing the business community at large.

Besides representing a cross section of the American business community in terms of number of employees, the U.S. Chamber represents a wide management spectrum by type of business and location. Each major classification of American business -- manufacturing, retailing, services, construction, wholesaling, and finance -- numbers more than 15,000 members in the U.S. Chamber. Yet no one group constitutes as much as 23 percent of the total Chamber membership. Further, the Chamber has substantial membership in all 50 states.

The Chamber's international reach is substantial as well. It believes that global interdependence provides an opportunity and not a threat. In addition to the 47 American Chambers of Commerce Abroad, an increasing number of Chamber members are engaged in the export and import of both goods and services, and have ongoing investment activities. The Chamber favors strengthened international competitiveness and opposes artificial U.S. and foreign barriers to international business.

STATEMENT
on
FEDERAL WATER POLLUTION CONTROL ACT
AMENDMENTS (S. 431, S.432)
for submission to the
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
of the
SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE
for the
CHAMBER OF COMMERCE OF THE UNITED STATES
by
Dr. Harvey Alter*
May 3, 1983

The Chamber of Commerce of the United States is pleased to have the opportunity to comment on S. 431 and S. 432, Clean Water Act amendments.

The Chamber strongly supports the national committment to the restoration and maintenance of the chemical, physical and biological integrity of the nation's waters. At the same time, the Chamber advocates the prudent use of our water resources and the application of reasonable and cost-effective controls to achieve that goal.

The Chamber endorses the concepts contained in S.431 and S.432 as useful vehicles for prompt congressional consideration of Clean Water Act amendments. However, the Chamber believes that important revisions are necessary to several of S.431's provisions.

In considering amendments to the Clean Water Act, the substantial progress that has been made in cleaning up the nation's waters, since passage of the 1972 amendments, must be recognized. The 1982 State Section 305(b) water quality reports, which were recently compiled by the Environmental Protection Agency (EPA) and submitted to Congress, show that the majority are meeting the 1983 clean water goals and that water quality in the country is good. This is contrary to public perceptions that little or no progress has been made in improving water quality, particularly regarding toxic substances. Also, qualitative judgements of water quality, usually

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*Manager, Resources and Environmental Quality Department, Chamber of Commerce of the United States

based on the physical appearance of a stream, may well influence public judgements much more than a list of numbers from chemical and biological analyses. This difference between qualitative and quantitative analyses may also be taken into account.

This is not to say that more cannot be done. The challenge before this Committee is to determine the adequacy of existing law to effectively deal with current water quality problems and to focus on ways to achieve any necessary further improvements.

Summary

This statement addresses four clean water issues. The Chamber:

- o opposes strongly Section 6 of S. 431 (water quality standards) because the proposal would revoke state flexibility under current law and regulations to modify state designated water uses where the use is not attainable due to natural background or irretrievable man-induced conditions;
- o recommends changes to Section 7 of S. 431 (pretreatment) to remove the highly restrictive conditions for municipal facilities that may want to manage local pretreatment programs;
- o agrees with the need for an extension of the technology compliance deadlines, similar to that of S. 432; and,
- o recommends that the current National Pollutant Discharge Elimination System permit term be extended from five to ten years.

Water Quality Standards

The Chamber is strongly opposed to Section 6 of S. 431 that would "maintain as a minimum use the designated use existing on January 1, 1983." Section 6 would negate the Environmental Protection Agency's (EPA) proposed changes to existing regulations that govern the way states set water quality standards. The revisions are intended to assist states in determining

appropriate, attainable water uses that are consistent with the Clean Water Act's objectives, in situations where a previously designated stream use (sometimes ten or more years ago) has not been met nor is it expected to be met after imposition of technology-based controls.

Any legislation that would freeze existing state-designated water uses would remove essential flexibility allowed under current law and regulations. EPA's 1979 water quality regulations (and proposed 1982 revisions) allow needed flexibility where existing designated uses cannot be practically attained. Where the designated use is not attainable due to natural background or irretrievable man-induced conditions, the states should be able to modify existing uses and are so permitted under current regulations [40 C.F.R. Section 1550(c)(3)]. This regulatory provision allows the states to recognize when they cannot do the impossible, and should not be nullified.

The October 1982 proposal (47 F.R. 49234) clarifies current EPA policy on water quality standards in four major areas: (1) the states are asked to focus on priority stream segments rather than reviewing all standards every three years; (2) the states are encouraged and provided guidance to set site-specific water quality criteria to implement standards decisions; (3) EPA elaborates on the circumstances under which a state may, or may not, modify a designated water use after analyzing environmental and physical factors affecting the attainment of that use, and assessing the economic impact, as well as the benefits and costs of attaining that use; and, (4) the antidegradation policy focuses on the maintenance of stream uses, rather than strict measures of ambient water quality.

EPA's proposal does not alter the application of the Act's technology-based standards. The proposed regulations prohibit alteration of existing stream uses, and the downgrading of designated uses that have not been attained, if they can be reasonably achieved. The proposal does not permit degradation of high quality existing stream uses to accomodate growth, or require states to modify existing water quality criteria, designated uses, or water quality standards.

The statements in the Congressional Record (February 3, 1983, S. 1008), that accompanied the introduction of S. 431 and S. 432, indicate a misreading of EPA's proposed revisions, in our judgement. Effluent discharge controls based on water quality standards were not, as stated in the Congressional Record, "abandoned by the Congress with passage of the 1972 Act." The claim that increasing the states' flexibility to determine their ability to attain designated water uses will encourage the states to downgrade their water quality standards, thereby encouraging industry to engage in "pollution shopping," is totally unjustified from the view of industries that will build the plants. That statement ignores the many complex factors that influence a decision to locate a new facility in a given area.

Prior to the 1972 amendments, federal pollution control legislation gave the states primary responsibility for determining required water quality, as well as establishing and enforcing limitations that were placed on dischargers.

While giving emphasis to the technology-based approach to control water pollutants, the 1972 Act nevertheless established national goals that are clearly based on an assessment of the quality of the nation's waters. The technology-based standards set minimum control requirements which all point source dischargers are required to meet. Where those requirements are not adequate to achieve a particular state-designated water use, the state water quality standards apply (on a case-by-case basis) and mandate the additional controls necessary to meet those uses. In practice, industry must meet the more stringent of the two standards.

Section 6 assumes that the original water quality standards were based on sound and accurate information. The limited stream data available in 1972, the states' lack of expertise in water quality standards setting, and EPA's other priorities, resulted in the development of standards which, in many cases: (1) do not reflect site-specific stream conditions; and, (2) are

difficult to implement on individual stream segments. Current law recognizes the need to re-evaluate continually the water quality standards to ensure the incorporation of new data that may warrant changes in the standards. Section 6 would allow states less flexibility than existing regulations to modify water body classifications .

At the same time, the states have been gradually improving their capabilities and are now in a much better position to review and revise standards in a technically sound fashion. The water quality data base that will drive the state review has had the benefit of 10 years of further development. EPA's proposed regulations provide additional flexibility requested by the states to develop site-specific standards which reflect local water quality conditions. By restricting states' flexibility to address their particular situations, dischargers will be faced with advanced (and expensive) treatment requirements, the cost of which has no reasonable relationship to the environmental benefits.

The changes provided in the EPA proposal properly affirm the historical perspective that there are many uses of a water resource and that a "goal" should not exclude justifiable uses. In determining the feasibility of attaining or maintaining designated water uses, the environmental, physical, and economic factors that influence the attainment of a use should be analyzed.

The revisions proposed by EPA incorporate the kind of flexibility state regulators and planners will need to deal with economic growth and development, with consequent creation of jobs and concurrent protection of environmental quality. Section 6 in S. 431 would circumvent this process.

In light of the more than 1400 comments received by the Agency, we suggest it is premature for Congress to restrict EPA's and the states'

ability to address unforseen problems. Congressional action on water quality standards should commence only after EPA has an opportunity to analyze the public comments received, make necessary changes to the proposal and promulgate final rules.

Pretreatment

Sections 307(b) and (c) of the Clean Water Act authorize EPA to establish pretreatment standards to control various parameters of an industrial effluent that discharges into publicly owned treatment works (POTWs). These pretreatment provisions are designed to control discharges that might contaminate sewage sludge, interfere with the disposal of sludge and/or the efficient operation of the POTW, cause the POTW to violate the terms of its NPDES permit, or cause water quality problems.

EPA has developed an elaborate and cumbersome pretreatment program involving national technology-based pretreatment standards for dischargers of toxic and non-toxic or non-nonconventional pollutants. In addition, EPA has developed general pretreatment requirements that are applied in conjunction with the categorical pretreatment standards.

In developing these standards, EPA has attempted unsuccessfully to develop a method of granting credits that reflects the consistent removal by a POTW of various substances in a discharger's effluent. Without these removal credits, industrial dischargers will be required to install expensive treatment technology to meet pretreatment limits in cases where they are not needed. Further, the general pretreatment requirements authorize a POTW to require the pretreatment of industrial wastes that are compatible with the treatment of domestic wastes. This has created a complex pretreatment program.

The Chamber agrees with the thrust of Section 7 in S. 431 that would allow states and municipalities the option of managing their own pretreatment programs. POTWs that are performing well should be able to tailor pretreatment programs to their particular needs and to "opt out" of the federal program.

While supporting the thrust of Section 7, the Chamber has reservations on several aspects.

Section 7 proposes a one-time, 120 day application period for POTW's seeking to implement alternative local pretreatment programs. The Chamber questions the intent in restricting the application period to 120 days. The 1981 Clean Water amendments provide POTWs until 1988 to achieve compliance with secondary treatment requirements. If POTW's will be continually coming into compliance over the next few years, there should be no time restrictions on their ability to apply for the necessary statutory authority to implement local programs.

An additional constraint is the requirement that a POTW be in compliance with secondary or advanced treatment or be subject to an ocean discharge waiver. This requirement, along with the limited time period for application, will severely restrict the opportunity for POTWs to assume local pretreatment programs. Many POTWs that are on compliance schedules, or are administering effective pretreatment programs in the absence of secondary or advanced treatment, would be precluded from "opting out" of the federal program. As Section 7 stands, few POTWs will be able to "opt out." The reference to the attainment and maintenance of designated uses existing on January 1, 1983 should be deleted for the reasons presented under the Water Quality Standards heading

Section 7 in S. 431 currently stipulates that, if a POTW's application is denied, dischargers subject to applicable categorial

standards must achieve compliance within three years of the standard's promulgation. If the POTW's application is denied a significant period of time after the standard's promulgation, the affected discharger may have insufficient time to achieve compliance. The Chamber recommends that the section be clarified to tie the three year pretreatment compliance schedule to the date of denial notification.

Recognizing that many POTWs, particularly the smaller ones, will not have the capability to develop a local program, the Chamber encourages continued efforts to develop a workable and effective federal pretreatment program. However, POTWs should have the opportunity to implement local programs designed to meet the requirements of their NPDES permits and to prevent interference with the disposal or use of their sludge, which are best handled on a site-specific basis. Such a targeted approach, in lieu of federal standards, would strengthen the pretreatment program. EPA could continue its present role of supervising enforcement and providing technical advice where local programs are established.

EPA should continue to address problems with the removal credit regulations, which are needed to avoid redundant treatment in cases where the national standards are applicable. EPA should promulgate national removal credits applicable to all pollutants subject to federal standards. In addition, EPA should develop a workable mechanism for the establishment of POTW-specific removal credits where a POTW can show that its removals are higher than the national credits or those credits otherwise do not apply.

Finally, plans subject to more than one categorical standard are currently subject to a moving target since the pretreatment requirements change as EPA promulgates categorical standards. Allowing plants three years to comply after promulgation of the last standard applicable to the facility would allow for the orderly design and construction of needed treatment systems.

BPT/BCT/BAT Compliance Deadlines

The Chamber agrees that an extension of the best practicable technology (BPT), best conventional technology (BCT), and best available technology (BAT) compliance deadlines is needed to allow sufficient time for many industries to comply with their effluent limitations.

When the current deadlines in the Act were established, Congress assumed that EPA would be able to issue effluent guidelines in a timely manner. Industry would then need approximately three years to obtain NPDES permits and install treatment systems needed for compliance. The current deadlines are unrealistic in view of the fact that EPA will not finish promulgating many of the effluent guidelines until 1984. In addition, large manufacturing facilities subject to more than one guideline category face a moving target as guidelines emerge over time.

The deadline extension for BAT and BCT compliance, as outlined in S. 431, assumes that EPA can adhere strictly to the court promulgation schedule. Historically, promulgation schedules slip. Unanticipated and legitimate delays in promulgating the guidelines would leave insufficient time for many industries to achieve compliance. Industries whose limitations have not been promulgated by the dates specified in S. 431 may not have adequate time to comply.

In lieu of specified deadlines, Section 301 should be amended similar to that of S. 432. Compliance with BPT, BCT and BAT effluent limitations should be required not later than 36 months after the date of promulgation of the appropriate effluent guidelines or issuance of a permit, whichever is later.

Terms of NPDES Permits

One issue not addressed by S. 431 or S. 432 is the term of current NPDES permits. The Act currently specifies that permits issued under the Act shall not exceed five years. Experience has shown that industrial dischargers generally require two to three years to install the treatment technology to meet permit limitations.

The length and complexity of the permit process, combined with the short life of NPDES permits and the time needed to comply with permit conditions, has resulted in industrial dischargers preparing or negotiating permit conditions constantly.

The Chamber recommends that Section 402(b)(1)(B) of the Clean Water Act be revised to extend the permit life from five to ten years, with continuing EPA authority to terminate or modify the terms of the permit for violations of permit conditions, misrepresentations or conditions that warrant a reopening of the permit.

By extending the permit term for most dischargers, the permit holder would be provided greater certainty, thereby justifying further investment in pollution control. State and federal agencies with responsibility for issuing discharge permits would have a reduced permitting work load and, consequently, more time to ensure the achievement and maintenance of permit conditions.

Conclusion

The Chamber affirms its support for the goals of the Federal Water Pollution Control Act and believes that existing law provides the basis for additional water quality improvements in the years ahead. At the same time, it recognizes that a number of the clean water programs need modification to enhance their workability.

With the public strongly supportive of the national commitment to enhance the quality of the nation's waters, Congress must bear in mind that continued efforts to control waste discharges must be based on what is technically achievable and cost-effective. Where possible, the clean water programs should be tailored to the needs of local decision-makers and provide the necessary flexibility to address future environmental concerns. A water quality program based solely on increased restrictions will ill-serve the country.

Chesapeake Bay Commission

April 26, 1983

The Honorable John H. Chafee
Chairman, Subcommittee on Environmental Pollution
United States Senate
567 Dirksen Building
Washington, D.C. 20510

SUBJECT: S. 431 - The Clean Water Act Amendments of 1983
Section 117 Chesapeake and Narragansett Bays

Dear Senator Chafee:

On April 15, 1983, the Chesapeake Bay Commission, by unanimous resolution, adopted the attached comments encouraging the enactment of Section 117 of S. 431. The Commission has requested that these comments be submitted for the record of the hearing held before your committee on April 14, 1983.

Respectfully yours,

Margaret R. Johnston
Executive Director

MRJ:pc
Attachments:
S. 431 Comments
Commission Membership
Commission Legislation

cc: Hon. Robert T. Stafford w/attachments

60 West Street, Suite 200 • Annapolis, Maryland 21401 • (301) 263-3420

PROPOSED COMMENTS OF CHESAPEAKE BAY COMMISSION on S. 431

April 14, 1983

The Chesapeake Bay Commission was created in 1980 by the Maryland and Virginia General Assemblies by adopting a Bi-state Agreement on Chesapeake Bay, in recognition of the mutual interests of the two states in migratory fowl, finfish, shellfish, water quality, and compatible commercial and mercantile uses of the Chesapeake Bay. The Commission has seven members from each state: two from each state Senate, three from each House of Delegates, a delegate of each Governor, and a citizen member from each state.

The Commission is charged with:

- identifying specific Bay management concerns requiring intergovernmental coordination and cooperation
- recommending to the states and/or to the federal and local governments legislative and administrative actions necessary to effectuate coordinated and cooperative management of the Bay
- collecting, analyzing and disseminating information pertaining to the region and its resources for the respective legislative bodies
- representing the common interests of Maryland and Virginia as they are affected by the activities of the federal government, and assisting in monitoring those activities
- providing an arbitration forum to serve as an advisory mediator for bi-state conflicts.

The Commission is funded wholly by the two states.

The Chesapeake Bay Commission urges favorable consideration of Section 117 of S. 431: Chesapeake and Narragansett Bays.

The Chesapeake Bay is most certainly a resource of national significance. As the Nation's largest and most productive estuary, it merits special federal attention, as is provided for in S. 431. While Maryland and Virginia share the Bay's resources and the primary responsibility for its management, use of lands and waters in four other states impact its continued viability. Primary among these is the Commonwealth of Pennsylvania which controls a large portion of the watershed of Susquehanna River, the largest fresh water source for the Bay.

The Chesapeake Bay Study, conducted by the Environmental Protection Agency and the States of Maryland, Virginia, and Pennsylvania, has shown the Chesapeake Bay to be an estuary under stress. The seven years and $27 million of research has improved greatly an underscanding of the problems that we as state legislators and managers will have to resolve in the coming years. We are now in the process of determining just what steps need to be taken at the state level to respond to the massive nutrient loads and toxic pollutants now known to be affecting the Bay.

The Commission expects to be part of the decision-making process which will result in state commitments to implementing activities designed to address the problems identified in the EPA Chesapeake Bay Program, and improving the quality of the Chesapeake Bay. To date work on the Management Study for the EPA Chesapeake Bay Program has been a cooperative effort of the states of Virginia, Maryland and Pennsylvania and the EPA. We expect the resulting document to be the product of consensus, and that states will commit to a substantial number of the recommendations that study is likely to contain. We are also engaged in a process designed to

develop more specific proposals for gubernatorial and legislative action for Chesapeake Bay which will be announced late this fall in a Bay-wide Chesapeake Bay Conference.

Section 417 of S. 431 will be a boon to our efforts because it would (1) continue a productive effort to determine the causes of environmental decline and propose solutions, (2) recognize the shared responsibility of the federal government and the states in managing the Chesapeake Bay, and (3) provide incentive through grants for all states in the region to participate in cleaning up the Bay, even though they may not benefit as directly as Maryland and Virginia.

While endorsing wholeheartedly the concept of federal-state cooperation and cost-sharing embodied in S. 431, the Commission believes that several points should be clarified either in amendments to the Act or in supporting documentation.

The interstate management plan referred to in Section 117(a) should be clearly identified and defined. It is our understanding that this term refers to the efforts currently underway to reach a consensus among the participating states on actions to be undertaken in each state to improve the environmental quality of the Chesapeake Bay. We expect that the EPA Chesapeake Bay Program findings and recommendations - which will outline broad strategies and alternatives for management - will serve as a guide to the states in determining which specific management actions to take. We would also expect that EPA and other federal agencies would be guided by the findings and recommendations.

The procedure by which the action plan developed by the participating states is adopted should be spelled out. This process should include both EPA and the states involved to ensure that it is indeed a consensus plan.

It must be made clear who will make the determination of whether a state has committed to implement all or substantially all of the interstate management

plan, and what criteria will be used to make this judgment. Does commitment imply a statement of intent by the Governor, commitment of sufficient funds by the state legislature, or some other action on the part of the state? It should be recognized that maintaining and actually improving the quality of the Chesapeake Bay may require expenditures of funds well beyond the significant authorization levels of this bill. We have recently determined that the states of Maryland and Virginia currently spend in excess of $15,000,000 annually in state funds in programs directed to manage or maintain habitat for fish and shellfish in Chesapeake Bay. This figure includes only research, administration of fisheries and related environmental programs, and replenishment of oyster bars. It does not include the capital funds spent in sewage treatment or agricultural runoff prevention. The interstate management plan will provide an appropriate standard for dispersing the $10 million in grants and $8.3 million in matching funds under this Act. The way in which states allocate additional scarce resources to maintaining and improving the Bay is, however, a problem with which each state will have to grapple.

Finally, it should be clear that this funding is not a substitute for continued funding of those programs which currently are vital to the Bay. Perhaps the most important of these, in light of the nutrient problems being faced in the Chesapeake Bay region, is the construction grants program. Serious cuts in this program would undermine the very significant contribution that S. 431 can make to an improvement in Chesapeake Bay water quality.

With these clarifications, S. 431 presents a most welcome commitment by the federal government to continue meeting its responsibilities in maintaining and improving a great National resource - the Chesapeake Bay.

Citizens Program for the Chesapeake Bay, Inc.
5 East Queens Way, Hampton, Virginia 23669 (804) 723-0774

April 20, 1983

Honorable John H. Chafee, Chairman
Subcommittee on Enviornmental Pollution
Committee on the Environment and Public Works
United States Senate
Washington, DC 20505

Dear Senator Chafee:

On behalf of the Citizen's Program for the Chesapeake Bay, Inc., I wish to express our appreciation for the identification of the Chesapeake Bay as a resource of national stature in S. 431, the bill to amend and extend the authority of the Clean Water Act.

The CPCB is a voluntary organization of citizen's organizations from around the Bay, devoted to promoting public discussion of Bay issues. We try to provide a "neutral forum" but obviously the welfare of the Bay is our basic concern.

That concern is the genesis of our support for your amendments, which would make a continuing federal presence on the Bay a reality in the immediate future. Hopefully, that presence would so effectively demonstrate its scientific capability that it could be established as a long term entity.

That is not to say that we are urging the creation of a permanent federal Bay bureaucracy. The time may come when a management system for considering Bay-wide problems will be established. In the meantime, however, the federal involvement is imperative to keep the momentum of the recent work of the Environmental Protection Agency alive, and to sustain the interest and cooperation of the states in the crucial implementation phases of the EPA Chesapeake Bay study.

From discussions with some of the national conservation organizations, we have learned that there is some interest on their part that your amendments authorizing additional work on the Chesapeake and the Narragansett be broadened to encompass estuarine studies across the entire nation. In a word, all the Nation's estuaries would be included in a national framework of federal study.

We are opposed to this suggestion, Mr. Chairman, because it would open the gates to a veritable stampede of requests for funds. That idea would destroy the opportunity to bring the Chesapeake Bay work, and

probably the Narragansett Bay review, to a responsible level of accomplishment. In short, we do not think that it is legislatively desirable to undertake such a sweeping authorization, nor for that matter do we consider it legislatively practical.

Should it come to the point where some such national perspective seems to be desirable, a much more logical and preferable approach would be to retain the authorization for the obvious programs on the Chesapeake and Narragansett now in the bill; and to add a further amendment to call for a two-year review of the status of the nation's estuaries. The purpose would be to devise criteria by which the Congress might establish a priority listing of estuaries in the need of federal study; and to give your committee a basis for scheduling further studies, should such a course seem desirable.

It goes without saying that our championship of the Chesapeake Bay is to be expected. We would, however, point out to critics of your amendment, that the Chesapeake is indeed a national resource, the value of which extends far beyond the bounds of this immediate region. Moreover it has received the benefit of the first really integrated examination of its water quality in relation to its other resources. To halt the progressive efforts of the past few years would, in our opinion, be the height of folly.

We are naturally not as conversant with the problems of the Narragansett Bay as we are those of the Chesapeake. We believe there is an equally rational basis for the special attention your amendment would direct toward that important body of water; hence we support your amendment in respect to the Narragansett Bay.

We thank you for the privilege of stating our views, and respectfully ask that they be included in the printed record of comments made concerning S. 431.

Yours very truly,

John S. Gottschalk
President

RECEIVED

Citizens Program for the Chesapeake Bay, Inc.

Frances H. Flanigan, Director
Public Participation
EPA Chesapeake Bay Program

6600 York Road
Baltimore, Maryland 21212
(301) 377-6270

May 11, 1983

Senator John H. Chafee
Chairman, Subcommittee on Environmental Pollution
Committee on Environment and Public Works
U. S. Senate
Room S.D. 523
Washington, D.C. 20510

Dear Senator Chafee,

I am writing to you on behalf of the Resource Users Management Team, an ad hoc advisory committee formed to provide advice on the conduct of the EPA Chesapeake Bay Program. RUMT, as we call this committee, has asked me to convey to you their appreciation of your efforts on behalf of Chesapeake Bay. They are especially grateful for the package of amendments to the Clean Water Act which you have introduced (S.431).

The section on Chesapeake Bay deserves the support not only of people who live in the Bay basin, but of everyone concerned about water resources management and water policy. The federal funds provided by EPA to study the Bay over the past six years initiated an unprecendented experiment in collaborative decision making. State governments have joined with EPA, and together with representatives from the private sector, they have forged a new approach to managing this valuable estuary.

S. 431 provides, we believe, the opportunity to follow-up the Bay Program with some selective management actions to address water quality problems in the Bay. The 55%-45% federal-state cost share arrangement proposed in the amendment is healthy and would encourage continued federal-state cooperation. RUMT has recommended that specific areas within the basin be targeted, that intensive strategies to reduce pollutants be developed and implemented for those areas, and that monitoring occur to assess the effectiveness of the programs.

The argument that our Resource Users Team would like to advance in support of S.431 is twofold. First, without implementation funds, we will be unable to test the effectiveness of the proposed management strategies for the Bay developed by the Chesapeake Bay Program. It is apparent that much of what has been done here is transferrable to other estuaries and other resource management problems elsewhere in the country. In order to maximize transferrability, this innovative approach needs to be carried through the implementation stage.

Second, it is apparent that the 1972 Clean Water amendments were weak in the area of non-point pollution. Section 208 required the development of non-point management plans, but implementation of those plans has not occurred. The Bay Program has demonstrated that non-point sources, particularly cropland, are significant, and in some cases major, contributors of nutrients to the Bay system. A serious effort has been made to initiate dialogue with the farm organizations in the basin, and several of the members of the Resource User Team speak on behalf of agriculture. Federal support is needed to continue this dialogue and to help put into practice some of the proven management practices which can reduce nutrient losses. We also believe that we need to develop further the methodology to reduce nutrient losses related to both commercial fertilizers and animal wastes, which could be accomplished in part by funds provided by S.431.

It needs to be made clear that improving the quality of Chesapeake Bay and protecting the living resources of the estuary is a job that will require much time, money, coordination and commitment. S. 431 is not a "quick fix" that will solve all the Bay's problems. Many government agencies and private groups will need to be involved over a long period of time. We do believe, however, that a good beginning has been made by the Bay Program and that S.431 would provide the needed incentive to move the Bay states into the implementation phase. The proposed federal share seems modest given the immense significance of the Chesapeake as a national resource.

We offer our support for S.431 and our thanks for your leadership.

Sincerely,

Frances H. Flanigan

Frances H. Flanigan

FHF/ab
Attachment: RUMT Roster
CC: Members of Pennsylvania, Maryland and Virginia delegations

RESOURCE USER TEAM

Donald A. Wilber
Maryland Agricultural Commission

Jay Hoffman
Maryland Farm Bureau

William Adams
Pennsylvania Farmers Association

Mick Blackistone
Marine Trades Association of Maryland

Thomas Evans
Virginia Bass Federation

William C. Lunsford, Jr.
Vice President for External Affairs
Zapata Haynie Corporation

Floyd Allred, Jr.
Maryland Association Soil Conservation District

Elizabeth Bauereis
Baltimore Gas & Electric Company

Morris L. Brehmer
Virginia Electric & Power Company

Keith Cheatham
Virginia Farm Bureau Federation

James Clarke
Sierra Club

Carlton Courter
Virginia Agribusiness Council

Richard H. Demmy
Roy Weston, Inc.

William J. Detweiler
Steamship Trade Association of Baltimore, Inc.

Whit C. Garrett
Virginia Soil & Water Conservation Commission

Davidson J. Gill
Tidewater Soil & Water Conservation District

Kenneth Gilbreath
Chesapeake Corporation

Thomas Gorman
Chesapeake Bay Yacht Club

John Gottschalk
Int. Assoc. Fish & Wildlife Agencies

Douglas Jenkins
Virginia Watermen's Association

Frederick M. Larsen
Virginia Boating Advisory Committee

Cranston Morgan
W. F. Morgan & Sons Seafood

Barbara O'Neill
Upper Chesapeake Watershed Association

Robert Prier
Chesapeake Bay Seafood Association

Gerald R. Prout
FMC Corporation

Merilyn B. Reeves
League of Women Voters

Larry Schwieger
Nat'l Wildlife Federation

Taylor Seay
Virginia Audubon Council

Arthur W. Sherwood
Chesapeake Bay Foundation

Larry Simns
Maryland Watermen's Associaiton

Wayne L. Sullivan
Allied Corporation

Darryl Tuckey
Bethlehem Steel Corporation

James Wallace
Virginia Seafood Products Commission

THE WASTE TREATMENT SERVICE

STATEMENT OF

GEOFFREY STENGEL, JR., PRESIDENT

ENVIRITE CORPORATION

TO THE

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

HEARINGS ON THE REAUTHORIZATION

OF THE CLEAN WATER ACT

April 14, 1983

ENVIRITE CORPORATION, BLUE BELL, PENNSYLVANIA 19422, PHONE: (215) 628-8655, CABLE: ENVIRITE, TELEX: 84-6450

Mr. Chairman, Members of the Committee, my name is Geoffrey Stengel, Jr. I am President of Envirite Corporation. This statement is submitted for the record on the reauthorization hearings for the Clean Water Act and S. 431.

My message is that toxic industrial wastes, in particular metal finishing wastes, can and must be made non-toxic and non-hazardous before being disposed of in a landfill or discharged into a municipal sewer system. Best available technology should be employed to render such wastes nonhazardous. Unfortunately, however, this is still the exception rather than the rule.

Pretreatment, as now required by the Clean Water Act, is a primary means to attain the national policy that "the discharge of toxic pollutants in toxic amounts be prohibited." Pretreatment is also essential in order for the objectives and requirements of other environmental laws to be achieved (e.g., the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and the Ocean Dumping Act).

Millions of tons of hazardous and toxic pollutants will continue to be released into the environment unless an effective pretreatment program is in place. Envirite supports the present

pretreatment system required by the Clean Water Act. We respectfully urge Congress to approach with great caution any major changes that could compromise the pretreatment program, and turn back the clock on water quality improvements.

PRETREATMENT IS THE KEY TO A TOXICS CONTROL STRATEGY

The control of toxic pollution, one of the goals of the Clean Water Act, is not restricted to protecting surface waters. All environmental media are already subject to a comprehensive system of environmental protection laws. Congress is now faced with two tasks. First, to assure that each of the components of this interrelated system of laws and regulations is working. Second, to assure that they are integrated in their implementation so that no regulatory gaps are tolerated and also that unnecessary overlap and duplication are minimized.

The pretreatment program under the Clean Water Act is a key test of how this toxic pollution control strategy is working. It is beginning, not as fast as we would hope, but momentum is building. Twelve final categorical standards are in effect now; an additional 12 have been proposed. Pretreatment standards for existing electroplating facilities were promulgated in 1979, but sources don't have to be in compliance until June 30, 1984 for

integrated facilities, and April 27, 1984 for non-integrated facilities. Metal finishing pretreatment standards, which Envirite strongly supports, was proposed on August 31, 1982; it isn't scheduled to be final until June, 1983.

Envirite has a hands-on perspective of EPA's pretreatment program and a vital stake in its success. For the past eight years, we have treated metal finishing wastes to make them non-hazardous in accordance with RCRA's delisting provisions. We fully comply with promulgated and proposed effluent guidelines, new source performance standards, and pretreatment standards under the Clean Water Act.

Let me illustrate the importance of pretreatment standards and how pretreatment is an essential part of other environmental programs by discussing the metal finishing industry. Aside from treatable acids and alkalies, metal finishing dischargers into publicly owned treatment works (POTWs) generate 61,000 metric tons of toxic metal wastes annually. These toxic pollutants are primarily chromium, lead, cadmium, nickel, copper, and zinc compounds. These toxic metals need to be converted into insoluble form to avoid future risk to the environment, and therefore have properly been listed by EPA as hazardous wastes.

The metal finishing industry is currently allowed two disposal methods involving no pretreatment. Their toxic wastes can be dewatered and the resultant hazardous waste placed into a land disposal facility regulated under RCRA. Alternatively, these toxic wastes can be discharged into a POTW, where the metals are passed through, untreated, into the sludge. The contaminated sludges are ultimately land disposed, usually by landfilling or land spreading (40%), are applied on the land for agricultural use (20%), are incinerated (25%), or dumped into the ocean (15%). None of these methods eliminate the danger of metal pollutants. Since these toxic metals are very soluble, they readily leach into the environment when land disposed or bioaccumulate when dumped into the ocean. Incineration cannot thermally destroy toxic metals. An effective pretreatment program is the only way to prevent toxic metals from polluting the environment.

RCRA does not now prevent toxic pollutants, particularly metal finishing wastes, from being released into the environment. RCRA excludes from the definition of solid waste any "solid or dissolved material in domestic sewage." EPA has interpreted this provision and RCRA legislative history to defer to the Clean Water Act as justification to exempt from RCRA hazardous waste regulations any industrial discharge into a

POTW. But EPA presumed that the pretreatment program will "insure that users of sewer and treatment systems do not dump wastes into the system that will present environmental problems." 45 Fed. Reg. 3309 (May 19, 1982). However, the failure of EPA to promulgate categorical pretreatment standards has allowed approximately 5 million metric tons of toxic wastes (according to OTA) to be discharged into POTWs, without any pretreatment. These wastes are passed through the POTW into the receiving waters or merely shifted from the generator to the sewage sludge.

A second RCRA deficiency could also be cured by pretreatment. EPA allows metal finishing and other hazardous wastes to be land disposed without any pretreatment to render them less toxic, mobile, persistent, or bioaccumulative. EPA relies on land disposal facility design and management standards to contain the wastes, but has acknowledged that its standards may not, in many cases, be sufficient to prevent or adequately reduce the potential human health and environmental impacts posed by the land disposal of hazardous wastes.

The land disposal standards are particularly deficient for containing toxic metal finishing wastes. Envirite has therefore petitioned EPA to require, pursuant to RCRA, owners and operators

of facilities that dispose of, treat, or store certain metal finishing wastes in a landfill or surface impoundment to pretreat such wastes to produce a stablized, non-hazardous waste and a clean wastewater effluent. Envirite, in other words, is seeking the same pretreatment under RCRA as that required by the proposed Clean Water Act metal finishing pretreatment standard.

Pretreatment is, in addition, the key to the Ocean Dumping program. Fifteen percent of all sewage sludge is dumped in the ocean. Because most of the sludge comes from larger, urban industrial areas, the potential adverse environmental impacts from toxic pollutants are more significant than even the 15 percent figure suggests. Heavy metals and other toxics that are allowed to be dumped into a POTW, without pretreatment and without complying with RCRA, then are dumped into the ocean as part of the sludge. Ocean dumping is controversial in large part because there is no pretreatment program to remove the heavy metals and other toxics. Remove the toxics and you remove many of the objections to disposal of the sludge.

Envirite believes that the most effective and efficient toxic metal control strategy is the proposed metal finishing pretreatment standard. Under the metal finishing pretreatment proposal, cyanide compounds are destroyed, and hexavalent

chromium is reduced to much less toxic and soluble trivalent chromium. An alkaline precipitation process removes the metals from the wastewater, with the resultant sludge virtually impervious to leaching. The sludge resulting from Envirite's treatment process has been delisted as a hazardous waste under RCRA.

Pretreatment will prevent toxics from entering the environment, will close a major RCRA loophole, and facilitate sewage sludge disposal. Envirite therefore views with concern any proposal to alter or weaken the pretreatment program.

THE PRETREATMENT PROGRAM SHOULD NOT BE WEAKENED

The present requirement for pretreatment is only now beginning to be implemented. We think it should be given a chance to work, without significant and disruptive changes at this time. Our concern is heightened when revisions to the pretreatment program are considered with other possible changes to the water quality and water use programs. Envirite respectfully urges Congress and EPA to take no action that will weaken the pretreatment program and frustrate the goal of eliminating toxic pollutant discharges.

Envirite has several specific issues of concern with the proposed reauthorization of the Clean Water Act.

First, the present exemption from secondary treatment under section 301(h) for ocean outfalls allows the direct discharge of industrial wastes that haven't met any RCRA control standards because of the domestic sewage exemption, and that haven't been pretreated because a categorical pretreatment standard is not in place. This provides industrial dischargers with a free, government-granted license to pollute! Envirite urges that the ocean discharge waiver be conditioned on all dischargers into the POTW complying with applicable categorical pretreatment standards, as well as requiring actual enforcement of the standards by the POTW. If there is no pretreatment standard, we don't believe that an ocean discharge waiver should be granted.

Second, Envirite is concerned that Congress may delay implementation of the pretreatment program. There is no justification for further postponement. As Envirite demonstrates, the metal finishing pretreatment standard is achievable now. EPA's economic analysis concludes that the cost of compliance is not significant. Note also that without a pretreatment program, neither the individual discharger nor the POTW is now paying the true cost of treatment because the sludge

is not now subject to more stringent RCRA standards. Delay in achieving pretreatment will not just adversely affect the Clean Water Act, but as we have pointed out, will seriously undermine the complementary RCRA and ocean dumping programs. Should Congress delay the pretreatment compliance dates, it should not be an across-the-board extension. Only categories for which EPA has not promulgated a pretreatment standard should be eligible for an extension. Congress also should make the RCRA domestic sewage exemption, the section 301(h) ocean outfall exemption, and ocean dumping of sewage sludge contingent upon compliance with a categorical pretreatment standard. Without such preconditions, untreated toxic pollutants will continue to be released unnecessarily into the environment.

Finally, Envirite is concerned that increased local control over the pretreatment system may undermine the program unless certain safeguards are assured. A uniform, national pretreatment system provides technology-based, objective standards for measuring performance. Industrial dischargers and the treatment industry know what is required and can plan accordingly. State and local authorities are authorized to impose more stringent controls where necessary to achieve water quality standards, but would not be allowed to set a standard below the minimum national pretreatment requirement. Every source in the same category

would be required to meet the same minimum standard wherever it is located, so that all can compete relatively equally on environmental costs. Resource demands on the POTW, moreover, would be limited to monitoring and enforcement actions.

Replacement of uniform, technology-based categorical pretreatment standards with an alternative scheme by which each POTW could establish numerical limits on the amount and concentration of toxic pollutants will, we fear, result in more total toxic pollutants being discharged into the environment. It will increase the uncertainty faced by industrial dischargers and by the treatment industry at a time when Congress should be encouraging treatment rather than land or ocean disposal of toxic pollutants. The pretreatment program must also be considered along with recent EPA proposals that would modify water quality standards regulation, proposals that we fear will undermine a program that has worked. Downgraded water quality standards and designated uses, combined with changes to the pretreatment standard, are a possible outcome of any changes to the Clean Water Act or EPA policy.

Furthermore, at a time when federal financial assistance to state and local pollution control authorities is decreasing, we also question whether POTWs will have the resources and expertise

to undertake a program potentially far more complicated and resource intensive than the present one. Proponents may intend the local alternative option to be strictly interpreted and be limited only to a few well-qualified systems, but experience clearly requires caution in granting EPA such discretion.

As stated earlier, Envirite does not see any need to change the present pretreatment system. We urge that Congress direct EPA to proceed with promulgation of final pretreatment rules and their implementation as expeditiously as possible. Should the Committee proceed with changes to the pretreatment system, we respectfully suggest the following be incorporated to assure that toxic pollutants are controlled and that environmental quality is maintained and enhanced. We urge that these proposals be adopted to close any gaps in regulation of toxic pollutants.

(1) The overall amount of each toxic pollutant allowed to be discharged in the effluent and in the sewage sludge should be no greater under the local alternative option than would have been allowed if a categorical pretreatment standard were in place.

(2) Each industrial discharger of toxic pollutants must pretreat its wastes in order to qualify for the RCRA

domestic sewage exemption, for the POTW to qualify for section 301(h) ocean disposal exemption, or for the POTW to dump its sewage sludge in the ocean.

(3) Each industrial discharger of toxic pollutants should be in compliance with its categorical pretreatment standard until an approved local pretreatment program is in place and is being enforced.

(4) Effluent limits should enhance, not just attain and maintain, designated uses for the receiving water body.

(5) Sludge use should be enhanced, not just "not be impaired" during the life of the modified NPDES permit under the local alternative.

CONCLUSION

Effective implementation of the pretreatment program under the Clean Water Act is critical to the attainment of the national goal of eliminating toxic pollution of the environment. Envirite believes that the best strategy is to prevent toxics from entering into the environment, rather than rely on inadequate hazardous waste containment requirements or the assimilative

capacity of the ocean, or on case-by-case numerical limits that may be impractical to implement and not be sufficiently protective of human health or the environment. Prevention by pretreatment is technologically achievable and cost effective, particularly compared to the costs of future hazardous waste site clean-ups, contaminated drinking water and irreversible ocean pollution.

Any change in the requirements of the pretreatment program will be disruptive. The consequences of disruption will have significance beyond the Clean Water Act. Envirite respectfully urges the Committee and Congress to proceed with great caution before making any changes to the pretreatment program that will delay implementation, cause increased uncertainty in the treatment industry, and allow toxic pollutants to continue to be released into the environment that would otherwise be controlled by the existing pretreatment program.

Mining and Reclamation Council of America

Suite 525 • 1575 Eye Street, N.W. • Washington, D.C. 20005 • (202) 789-0220

WILLIAM W. LYONS
Chairman of the Board

DANIEL R. GERKIN
President

June 21, 1983

The Honorable John Chafee
Chairman, Subcommittee on Environmental Pollution
Committee on Environment and Public Works
SD Dirksen Office Bldg., #410
Washington, D.C. 20510

Dear Mr. Chairman:

The Mining and Reclamation Council of America (MARC) submits the enclosed summary of positions for the Subcommittee's consideration in reauthorizing the Clean Water Act. MARC is a national organization whose membership represents over 70 percent of the nation's surface coal production.

The coal mining industry seeks to strengthen the effectiveness of the Clean Water Act while improving our ability to continue restoring and maintaining our nation's waters. After more than a decade of experience with the Act, we have found it to be a workable tool yet have had difficulty dealing with its rigidness. The lack of flexiblity has caused unnecessarily high compliance costs without regard for the social and environmental benefits. MARC believes that the enclosed modifications to the Act will facilitate the expeditious attainment of the Act's goals while recognizing the technological and economic parameters facing the coal industry.

MARC appreciates the Subcommittee's continuing interest in the attainment of the Act's objectives and the impact of the clean water program on the surface coal industry. We would be pleased to submit any additional information the Subcommittee may require.

Sincerely yours,

Daniel R. Gerkin
President

DRG/jak
Enclosure
CC: The Honorable George Mitchell
Ranking Minority Member

Members of the Subcommittee

* MARC is authorized to represent that the positions contained in the enclosed are subscribed to, and represent the positions of, the Pennsylvania Coal Mining Association.

SUMMARY OF POSITIONS

NAVIGABLE WATERS

Problem:

The definition in the Act of navigable waters as "water of the United States, including the territorial seas" is overly broad. This definition severely constrains the preparation of mining plans and control technology for mining through intermittent and ephemeral waterways. The capability to mine through these waterways and to reconstruct them to their pre-mining use is technically proven.

Recommendation:

Amend the Act to qualify the term, "navigable waters," as:

> "shall exclude waters that do not support a diversified fish, shellfish or wildlife population; do not provide water to downstream users do not flow into other water bodies, and for which the average annual flow is less than five cubic feet per second."

ZERO DISCHARGE GOAL

Problem:

Attempting to achieve the "zero discharge" goal is at times technologically and economically unfeasible and in many cases undesirable, especially where the characteristics of the receiving waters are not affected by the quality of conventional discharges.

Section 101(a)(1) currently states:

> "It is the national goal that the discharge of pollutants into navigable waters be eliminated by 1985."

This goal has been found to be unrealistic and often unnecessary in implementing the Act's objectives. Meeting "zero discharge" for conventional pollutants forces alternatives to to discharge treatment such as: land application, deep well injection and ocean dumping, as well as, waste regeneration and recycling. Commendable as zero discharge sounds, the

economies of compliance, at this point in time, are linked to fundamental technological limits which inhibit compliance. Without the imposition of prohibitive costs attendant with the ultimate degree of control for untried technologies, zero discharge cannot be achieved. Advances in both measurement and control technology appears promising but are not proven at this time.

Recommendation:

Section 101(a)(1) should be amended as follows:

> "It is the national goal that the discharge of pollutants in harmful quantities into navigable waters be eliminated by 1985."

By adding the language, "in harmful quantities," the Act will reflect a balance of the Act's goals and technological and economical feasibilities.

FISHABLE/SWIMMABLE WATER QUALITY GOAL

Problem:

Section 101(a)(2) the Clean Water Act currently states that:

> "Wherever attainable, a goal of water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water be achieved by July 1, 1983"

In many areas, a fishable/swimmable water quality use is unrealistic. The goal is not economically viable nor philosophically compatible with the legislative intent of the Act. Legislative history indicates that the objective of the Act is to prevent the destruction of the nation's water's capacity to clean itself. The natural regeneration capacity of the country's water systems is recognized. The clear goal is not to compel restoration of water to pristine condition, but to achieve a desirable level of quality.

Recommendation:

Section 101(a)(2) of the Act should be amended as follows:

> "It is the national goal that, wherever attainable, water quality that provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water be achieved."

NPDES PERMITS

Problem:

The National Pollutant Discharge Elimination System (NPDES) permit program currently requires the NPDES permit to be renewed every five years. The five year lifespan does not permit industry to plan, design and invest in complex control technology or to fully amortize the capital investment in the control technology. Furthermore, the permit holder does not have sufficient time to adequately test, evaluate, and refine the effectiveness of the treatment system prior to beginning the permit renewal application process.

EPA and the state agencies assigned responsibility for issuing NPDES permits are currently facing an increasing backlog of expired permits which must be renewed. Extension of the permit term would facilitate staggered renewals and reduce the annual permitting workload.

Recommendation:

Extend the life of an NPDES permit from five to ten years.

WATER QUALITY STANDARDS AND WATER QUALITY BASED EFFLUENT LIMITATIONS

Problem:

Although the goal of non-degradation of the nation's waters is accepted, the provision of S.431 Section 6(a) to require states to "maintain as a minimum use the designated use existing on January 1, 1983," is strongly objectionable. It's adoption would eliminate a state's flexibility, so necessary in responding to local environmental conditions, advances in technology, and its socio-economic needs. The proposal erroneously assumes that all classifications were true and accurate on January 1, 1983. As such, it precludes a state's . . . ability to analyze and review the basis for original waterway designations.

Many streams were designated as "high quality" in the early years of classifying and standard setting, with little or no actual site-specific data and little or no thought given to reasonable planning goals. As a result, many streams are subject to extremely stringent

water quality standards in order to protect very restricted uses. As a consequence of these strict classifications and the absence of dilution water during parts of the year, many effluent limitations in NPDES permits are "water quality" based, rather than technology based.

The coal industry is faced with unreasonable classifications done on a "best case, what if" scenario, i.e., if all pre-law mining activity had not taken place and consequently had no detrimental affect upon the stream, then the highest designated stream use, in such a wishful perspective, would be appropriate. In many cases, modern mine operators collect and treat acid mine drainage from older mining areas, as they remine and reclaim them; thereby cleaning-up the affected streams.

Stream use designations should be based upon baseline water quality determinations and historical use to provide a more clearly defined permitting system. Technical, economic and social criteria can be evaluated with environmental considerations to formulate a consistent and compatible basis for user designation.

Although performance standards are inherently preferable, in the instance of water quality based effluent limits, experience to date has shown them to often be totally unrealistic. The regulatory constraints are such that rather than allowing flexibility in the character and quality of effluent limits which are harmonious with the receiving waters, the water quality based standards ignore historical use and quality of receiving water and are frequently beyond the range of technology based effluent limits. . . .

The EPA's proposed regulations of October 29, 1982 clearly encourage the states to develop and implement classification procedures and plans. This program addresses the local economic and social needs while using technology requirements to fulfill environmental objectives. The regulations fulfill the mandate of state primacy provided for in Sections

101 and 303 of the Act. They recognize that the states are most qualified to make stream use designation.

Recommendations:

(1) Amendments to the law to codify previous regulations or preclude Congressionally mandated state discretion in establishing standards should be rejected.

(2) The standards established in NPDES permits should be the exclusive criteria for determining compliance of point sources with the provisions of the Act.

SECTION 404

Problem:

As a result of a legal challenge to the Corps of Engineers interpretation of the Clean Water Act, the Corps jurisdiction under Section 404 has been expanded beyond traditional "navigable waters of the United States" to include all streams whose average annual flow is greater than five cubic feet per second and to all wetlands adjacent to such waters and lakes greater than ten acres. This extension of jurisdiction has resulted in impositions and unconscionable delays to the coal mining industry in meeting the regulatory requirements of Section 404.

Specifically, the Corps of Engineers and the EPA have overlapping responsibilities for the Section 404 permit program. The Corps has the primary responsibility for management of the program and for promulgation of the regulations. The EPA has a strong overview presence, technical guidance responsibilities, and veto power if it doesn't concur with the Corps decision. Recently, EPA's Section 404(b) guidelines were elevated to pass/fail standards; thereby, significantly diminishing the technical and socio-economic factors considered in the Corps public interest review.

This duplication of responsibility has caused widespread confusion. Reasoned and orderly permitting is the victim of this confusion while the two agencies debate philosophy and

struggle for dominance.

Recommendation:

The Corps should be assigned exclusive responsibility for the 404 program. It has decentralized staffs familiar with the local conditions relevant determining permit requirements. Other agencies, such as EPA, should provide recommendations to the Corps during the review process. The Corps may consider those recommendations when making the public interest determination required by law.

FEDERAL COMMON LAW

Problem:

In City of Milwaukee vs. Illinois, 451 U.S. 304 (1981) the Supreme Court held that the Congress, in enacting a comprehensive regulatory program, supervised by an expert administrative agency, precluded the ability of an individual through the application of nuisance concepts to bring a federal common law action for activity regulated under the provisions of the Act. The court specifically found that a party affected by the decision of a permit granting agency is provided ample opportunity under the Act's provisions to seek redress.

In its decision the Court stated:

> It would be quite inconsistent with this scheme if federal courts were in effect to 'write their own ticket' under the guise of federal common law after permits have already been issued and permittees have been planning and operating in reliance on them.

This decision of the Court is grounded in the fundamental principles of federalism as well as sound practical considerations. Federal authority should be exercised through statutes enacted by Congress and administered by federal agencies. The courts are not better suited than the Congress to develop national policy in areas where the Congress has enacted comprehensive legislation.

In current discussions surrounding amendments to the Clean Water Act, various groups are seeking (1) a legislative repeal of these decisions and (2) the creation of a new right of action in the Federal Courts. Adoption of such an amendment would inject an unacceptable degree of uncertainty as to federal standards of conduct and remedies and thwart the Congressional intent of providing for orderly pollution abatement and a fixed period for permits issued under the Act's NPDES system.

The legal and practical significance of this permit program would be in grave doubt, however, if a permittee could be subject to a suit in federal court not on the ground that the permittee was out of compliance with its permit, but rather that a complying discharge constitutes a common law nuisance, such undefined liability could lead to chaos. As the Supreme Court noted in Milwaukee, "[t]here are no fixed rules that govern; these will be equity suits in which the informed judgement of the chancellor will largely govern." Such actions would tend to render the permit process meaningless and require the courts to second-guess administrative determinations in a manner that could not have been anticipated.

In enacting the Clean Water Act, Congress set forth a comprehensive scheme requiring that dischargers meet detailed requirements including the attainment of technology-based effluent limitations and the achievement of water quality standards. The Supreme Court's decision in the Milwaukee case limited the authority of federal courts to develop common law in this area. The decision in effect requires the courts to defer to the permit agencies as to discharges regulated by the Act. Proposed amendments would repeal that decision and would subject those who are in full compliance with all Clean Water Act requirements to additional, undefined federal liabilities. Establishing additional remedies, as proposed, would inject chaos in the federal water pollution control program and frustrate the intent of the Act.

Recommendation:

Amendments to legislatively repeal the City of Milwaukee vs. Illinois decision and create a new right of federal action should be rejected.

NACD

April 15, 1983

The Honorable John Chafee
Chairman, Subcommittee on Environmental
Pollution
Committee on Environment and Public Works
U.S. Senate
Washington, DC 20510

Dear Chairman Chafee:

This Association respectfully requests the opportunity to present its views on S.431, the Clean Water Act Amendments of 1983. We would request that this letter be considered a STATEMENT FOR THE RECORD relative to this bill.

We support the provisions in Section 2 of the bill to extend the authorization of appropriations for an additional period.

The addition of the proposed new Section 117 to implement the Chesapeake Bay program is appropriate. Conservation districts in the several states involved have been assisting in the preparation of the plan, especially as the plan relates to non-point sources of pollution. This new section is needed to implement the plan.

We support the provisions of the proposed Section 516(g) which calls for an evaluation of non-point source controls. We would add, however, that control programs have been developed in most states and implementation is under way. The 1977 Act added Section 208(j) to address the agricultural aspects of non-point pollution control. This provision has not been funded by Congress. Therefore, other provisions of the Act where funding has been provided are being used to correct problems where appropriate. The Clean Lakes Program (Section 314) is being used to install conservation and sediment control measures upstream from inland lakes. The Great Lakes Program (Section 108(a)) funds are being used to assist landowners in the Lake Erie Basin to demonstrate the value of conservation tillage in reducing sediment and phosphorus pollution of the lake. Conservation districts have been conducting this program under a grant from EPA.

Early in the present Administration, EPA notified the U.S. Department of Agriculture that agricultural non-point pollution control was a USDA responsibility. Although we recognize that USDA has a role in the control of non-point sources, we believe that EPA cannot, and should not completely ignore the issue of non-point source pollution from agricultural activities.

National Association of Conservation Districts
Rm. 730, 1025 Vermont Ave., N.W., Washington, DC 20005
Phone (202) 347-5995

There is another provision of the Clean Water Act which should be addressed in this legislation. That is the matter of Section 404 of the Act, relative to the disposal of dredged or fill materials. Recent administrative changes by the Corps have relieved some of the serious complaints about the program, but these administrative changes are being challenged.

The use of general permits has greatly reduced the burden of permitting minor, non-cumulative activities. We recommend, however, that Section 404(e) be amended to authorize general permits for categories of waters, in addition to the present authority for categories of activities.

Section 404(e)(2) should be modified to require the review of general permits every five (5) years, rather than the present requirement for expiration of general permits after five years.

It is obvious to us that the present requirements of Section 404(g) are much too cumbersome. No state has yet assumed responsibility for administering the Section 404 permit process. This provision should be revised and simplified to allow states to assume the administration of this program.

Thank you for the opportunity to present the views of this association.

Sincerely,

Charles L. Boothby

Charles L. Boothby
Executive Secretary

19-871 O—83——66

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an organization of management executives in the fields of metal finishing and allied arts

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STATEMENT OF

JAMES P. LEMONIAS

PRESIDENT

THE NATIONAL ASSOCIATION OF METAL FINISHERS

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ON S.431

THE CLEAN WATER ACT

AMENDMENTS OF 1983

March 7, 1983

The National Association of Metal Finishers (NAMF) appreciates this opportunity to present its views on amending the Clean Water Act and, more specifically, on the proposed amendments to the pretreatment section of the Act. Approximately 85 percent of the electroplating firms across the United States discharge into publicly owned treatment works (POTWs). NAMF is thus significantly affected by the pretreatment program, and has for some time been urging Congress to allow more flexibility in the federal program. In testimony before this subcommittee last year, NAMF explained in some detail the problems with the current EPA pretreatment program and the need for reform. We are attaching a copy of that testimony for the convenience of the subcommittee.

Today, we would like to summarize the need for alternative local programs, and to discuss the particular provisions of S.431. In summary, our view is that the federal pretreatment program has centered on national technology-based standards which do not properly take into account the need for such treatment. The result is costly, redundant treatment by both industry and POTWs. The Senate Bill, S.431, recognizes the need for more flexibility in the pretreatment program, and we commend Senators Chafee and Randolph for addressing pretreatment in these amendments. NAMF supports a legislative amendment to allow users to POTWs that establish alternative

local pretreatment requirements providing adequate protection to the environment to be exempt from the national pretreatment standards. We are concerned, however, that several provisions of the bill are too restrictive, and we have specific suggestions to make the bill more workable.

The Need For Reform

Last year this subcommittee heard significant testimony on the need for reform of the current pretreatment program. The heart of the current problems with the program center on the adoption and implementation of the federal categorical pretreatment standards. NAMF is committed to the goal of cleaning up the nation's waters, but believes that the Act has not been implemented with adequate flexibility and balance. The need for reform of the pretreatment program, in our view, is highlighted by the tremendous amount of confusion concerning the general pretreatment program, the onerous impact of the EPA pretreatment standards for electroplating, and the fact that these national standards often are not necessary to protect the environment.

We believe that the pretreatment program can be strengthened by directing attention to any problems that exist at the local level, and by placing responsibility for treatment requirements on the municipalities and states involved. As we noted before this subcommittee

last year, these conclusions are supported by a December 1981 report by an EPA contractor, JRB Associates, Inc.*/ The report contained the key findings that much progress has already occurred without national categorical standards, that the problems that exist with respect to water quality or sludge disposal are site-specific and cannot readily be solved by national standards, and that the application of national standards will result in no appreciable reduction in water quality violations, where they exist.

As we stated last year, the electroplating industry will face a particularly severe impact as a result of the implementation of the national categorical standards. EPA's own estimates show that the standards are so costly and the job shops in our industry so economically vulnerable that the required compliance by 1984 is likely to result in the closing of 20 percent of the job shop platers in the country.**/ This drastic economic impact is further exacerbated by the fact that EPA has proposed new and more stringent standards for metal finishing, a category that overlaps substantially with electroplating and adds further confusion to the existing

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*/ JRB Associates, Inc., "Assessment of the Impacts of Industrial Discharges on Publicly Owned Treatment Works" (Nov. 20, 1981).

**/ 44 Fed. Reg. 52594 (Sept. 7, 1979).

situation. Thus even now, just a year before the compliance deadline for the electroplating standards, this industry faces a moving target.

Accordingly, NAMF believes now is the time for Congress to make changes in the existing pretreatment program. NAMF strongly supports proposed amendments that allow the development of alternative local pretreatment programs. For our industry, the timing is critical in view of the 1984 deadline for compliance with the electroplating pretreatment standards. Rather than imposing pretreatment standards across the board, Congress should permit the development of local pretreatment programs where municipalities have the administrative and technical capability and local authority to operate such a program. We believe that it is the ultimate responsibility of a POTW to address problems confronting its treatment system.

As stated in our testimony last year, well before EPA began to implement its general pretreatment program, a number of municipal treatment authorities had been implementing local pretreatment programs applicable to industrial wastes, including metal finishing wastes, for years with considerable success. For example, the Metropolitan Sanitary District of the City of Chicago has had in operation an effective industrial waste control

program since 1969. NAMF has submitted information to EPA demonstrating that adoption of Chicago's 93 percent effluent reduction limit, a modest 6 percent less than EPA's 99 percent limit, would virtually cut the costs of such control in half. In addition, the development of a local pretreatment program would allow indirect dischargers to a POTW, which might be experiencing problems with treatment of a particular pollutant such as cadmium, the option of reducing their use of that substance, rather than attempting to meet full-blown pretreatment regulations.

Accordingly, NAMF believes that the pretreatment program would be more successful and more cost-effective if it is allowed to be developed on a local level.

Section 7 of S.431

We are pleased that Section 7 of S.431 addresses the need for reform of the pretreatment program. It permits individual POTWs to establish and implement alternative local pretreatment programs in place of the national categorical standards. NAMF endorses the concept of allowing POTWs which have the capability of developing and enforcing good local programs to "opt out" of the federal program. As stated in our testimony last year, we believe that effective progress will be made at the local level. As to the specifics of Section 7 of S.431, we generally support the concept of a requirement of pre-application by the POTW, and the issuance of a stay of categorical

standards for a period not to exceed two years while the POTW completes the application requirements.

There are two areas of concern, however, which we wish to bring to the attention of this subcommittee. We urge that the bill be revised to allow more time for both the POTW and industry to comply with the applicable requirements. Such additional flexibility will allow the bill to serve its intended purpose and will provide an incentive for POTWs and industry to meet its requirements. On the other hand, failure to allow sufficient additional time will have the effect of eliminating most POTWs and industrial users from the benefits of the provisions of the bill.

The pre-application requirements of subsection (e)(2) of the bill contain two provisions which require additional time. In particular, the bill requires that POTWs -- within 120 days after the enactment of the amendments -- have an approved pretreatment program under Section 402(b)(8) of the Act and be in compliance with all applicable effluent limitations. These requirements are unrealistic. As of now, over 95 percent of the nation's POTWs do not have approved pretreatment programs. Similarly, it is unrealistic to expect that POTWs will immediately be in compliance with applicable effluent limitations. We have two specific suggestions to deal with these timing

problems. First of all, we urge that these concerns be addressed at the application stage in subsection (e)(3), rather than as pre-application requirements. This will allow POTWs some opportunity to come into compliance during the two-year period in the bill. In addition, we believe that the requirements should allow additional flexibility. In particular, the bill should simply require that the POTW has submitted a general pretreatment program and that the Administrator (or if appropriate, the state) has approved or has not disapproved the program limitations. Further, it should be sufficient that the POTW is either in compliance or subject to a schedule for achieving compliance or subject to a schedule for achieving compliance with applicable effluent limitations.

As to the time for industrial users, two aspects of the bill should be clarified. First of all, the bill does not make clear what period of time will be allowed for industrial users of the POTW to come into compliance with the approved local pretreatment limitations. As this subcommittee is aware, a substantial period of time is required for industry to plan and install treatment necessary to meet effluent limitations. For large industrial treatment systems, it has generally been recognized that three years' time is required. Yet the bill seems to require compliance with local limitations upon approval of the program. Where the local limitations are put in place

just before the program is submitted and approved, this would leave virtually no time for compliance. This aspect of the bill appears to be an oversight, and provision should be made for allowance of a period of time for compliance up to three years from the approval of the local program.

Second, the provision in subsection (e)(5) with respect to the termination of a stay should be clarified. If currently written, the bill provides that if an application is denied, industrial users shall achieve compliance with federal standards in the shortest possible time, but in no case later than the time specified under subsection (b)(1) of the Act. Although this provision seems to refer to the three-year period of time in the Act, it could also arguably refer to the calendar date (generally three years from promulgation) specified for compliance in the categorical standards. The latter obviously would pose significant problems, since in many cases the compliance deadline will have expired or an inadequate amount of time would remain for compliance. We accordingly urge that this provision be rewritten to make it clear that when an application is denied and the prior two-year stay is terminated, industrial users would have a reasonable period of time to comply -- not to exceed three years.

In conclusion, NAMF's commitment to a clean environment is as strong as its commitment to the overall success of the industry. We believe that a bill that would provide for alternative local pretreatment programs is consistent with the commitment to control toxic pollutants. We will be happy to provide any additional information that the Committee may request.

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NAMF

an organization of management executives in the fields of metal finishing and allied arts

STATEMENT BY

THE NATIONAL ASSOCIATION OF METAL FINISHERS

BEFORE

THE SENATE SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

PRESENTED BY

WILLIAM D. WIGGINS

PRESIDENT

AUTOMATION PLATING CORPORATION

GLENDALE, CALIFORNIA

JULY 22, 1982

EXECUTIVE SUMMARY

Since the enactment of the 1972 Amendments to the Clean Water Act, EPA has been struggling to implement a pretreatment program that relies on national, "categorical" technology-based standards. Few standards have been established to date. EPA's electroplating pretreatment standards will have a crushing economic impact, closing 587 job shops and requiring over $1.3 billion in capital costs.

EPA's general implementing regulations have also been in disarray. The Act provides for the granting of "credits" reflecting removal of pollutants by POTWs, but EPA's removal credit regulations have proved unworkable. Redundant treatment thus now seems inevitable.

To a degree not previously expected, conventional secondary treatment systems used by municipalities have succeeded in removing toxic pollutants in an efficient manner. Moreover, the imposition of national categorical standards will not significantly eliminate water quality problems, where they exist. It is thus time to question the basis for the current program.

Congress should allow the development of pretreatment programs by local authorities. The POTW is in the best position to address any local problems that exist. POTWs have for years been implementing successful local programs. Allowing for local programs will avoid costly, redundant treatment and focus the program on site-specific solutions to interference and passthrough problems, where they exist.

Mr. Chairman and members of the Subcommittee, I am William D. Wiggins, President of Automation Plating Corporation of Glendale, California. I am here today representing the National Association of Metal Finishers ("NAMF"), which I serve as a member of the Board of Directors and the Executive Committee. I am the immediate past president of NAMF and an active member of the association's Legislative Action Committee. I have had a long standing interest in the Clean Water Act in general, but most particularly in that Act's provision for a federal water pretreatment program, which is of paramount concern to the metal finishing industry.

NAMF appreciates this opportunity to appear before you and present our views on amending the Clean Water Act and, more specifically, on the proposed amendments to the pretreatment section of the Act (Section 307) governing the indirect discharge of waters into publicly owned treatment works (POTWs). NAMF has been in the forefront of activities surrounding the pretreatment program since its members represent one of the first industries for which industry-specific, or categorical, pretreatment standards have been developed by EPA. Approximately eighty-five percent of the metal finishing firms across the United States discharge into POTWs. Therefore, this industry is significantly and directly affected by the pretreatment program.

We feel that this places us in a unique position to comment on the pretreatment program and the proposed amendments.

Mr. Chairman, in view of the large number of electroplating firms in Rhode Island that service the jewelry and other industries, you too must be particularly aware of the critical importance of the pretreatment issue as it relates to the metal finishing industry and the resulting economic and environmental impacts.

Let me begin by stating that NAMF is committed to the objectives of the Clean Water Act and recognizes its responsibilities under the law. This is evidenced by the association's active program furnishing guidance and technical assistance to its members concerning the requirements of the law and the implementing regulations. NAMF's program includes the establishment of the Metal Finishers' Foundation, which has funded studies to explore new processes for recovering metal from electroplating sludges and other water pollution control mechanisms. NAMF also sponsors annual technical seminars and other forums for educational exchange on this topic.

But NAMF is equally committed to the principle that the Clean Water Act can best be implemented at the local level where appropriate, providing site-specific flexibility and targeted controls focused on a particular local water quality situation. The development of local pretreatment programs by qualified POTWs in lieu of national categorical standards is perhaps the best example of a case where additional local control and increased flexibility is both necessary and

appropriate. Before I discuss this concept and NAMF's comments on EPA's proposed amendments in more detail, it is useful to review some background information on NAMF and its historical involvement with categorical pretreatment standards.

NAMF AND THE METAL FINISHING INDUSTRY

Briefly stated, metal finishing is the process of coating an object, usually made of metal or plastic, with one or more layers of another metal, paint, or plastic. Electroplating is one metal finishing process by which metal is coated onto a basis material through the use of an electric current. Metal finishing results in surface alterations that produce important functional changes for the product. These include corrosion resistance, temperance resistance, improved lubricity, abrasion resistance, insulation, enhanced appearance, and better safety features. Brass, chrome, silver, nickel, gold, zinc, and copper are examples of the coatings used in the metal finishing industry, each possessing unique and valuable properties.

The end metal finishing products, such as ball bearings, serve as vital components of industrial equipment. Furthermore, metal finishing helps conserve resources by extending the life of products. Thus, the metal finishing industry provides an absolutely essential service to the manufacturing economy of this country in such important areas

as the medical, recreational, aerospace, defense, electronics, auto, and steel industries, to mention a few. Without it, this country's basic manufacturing industries could not survive.

The industry is composed of two basic types of plants -- the larger so-called captive shops and the smaller independent job shops. The captive shops perform electroplating as part of or in addition to the manufacture of various products. According to EPA, the captive shops represent the major portion of the industry.[1]

In contrast, the smaller independent job shops perform electroplating as their primary line of business and do not own or manufacture products that they electroplate. Job shops are small independent electroplating businesses, employing 15 to 20 people and having capital of approximately $250,000 and annual gross revenues of $650,000. Out of the 7783 establishments estimated by EPA as engaged in electroplating operations, approximately 2734 of these establishments are job shops, employing 62,800 workers.[2] NAMF itself has about 1200 of these job shops as members.

The majority of job shops are located in large urban areas and are indirect dischargers into POTWs. They are regulated by local municipal ordinances and by contracts with

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[1] 47 Fed. Reg. 1730 (Jan. 13, 1982).

[2] 44 Fed. Reg. 52594 (Sept. 7, 1979).

municipalities and sanitary districts. In addition, these small job shops function in the highly competitive metal finishing industry, competing with the larger captive shops which dominate the industry. As a result of this intense competition and their small size, individual independent job shops generally have only modest returns on investment profits and modest borrowing capabilities.

The foregoing distinction of the small electroplating job shops from the rest of the metal finishing industry is important for the Committee to note. Electroplating job shops, which are indirect dischargers, account for only a relatively small percentage of the overall effluent discharged by the entire industry. These are distinctions that categorical standards blindly ignore. Nonetheless, it is these very electroplating job shops, that are small and economically vulnerable, which EPA is requiring immediately to commit substantial funds in order to attempt compliance with the categorical pretreatment standards for electroplating.

Indeed, according to EPA's own estimates, existing regulations for electroplating pretreatment standards will result in the closure of approximately twenty percent of the job shops in this country. Specifically, 587 job shops, employing 9653 workers, may have to shut down as a result of the regulations. Moreover, this estimate is only "an approximation, not a 'worse case' outside limit."[9]

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[9] Id.

In addition, those firms which manage to survive must bear the burden of approximately $1.3 billion in capital costs and nearly $500 million in annual operating costs that these electroplating standards will impose.* Our own industry estimates of this already drastic impact are even higher. I will elaborate on the economic impact of these regulations in more detail later. Suffice it to say that this projected impact has reinforced industry's belief that only through pretreatment programs at the local level can the Clean Water Act objective of providing the necessary environmental protection be achieved while reducing unwarranted and extreme economic repercussions.

LOCAL PRETREATMENT EFFORTS

There are various treatment technologies that are available for use in the metal finishing industry. A conventional treatment system for job shops would consist of chromium reduction, cyanide oxidation, pH adjustment for precipitation, clarification, and final neutralization before discharge. This is the basic technology upon which EPA has based its pretreatment standards for electroplating. This technology is widely used in areas of the country in which pretreatment programs are currently being enforced. Additional steps are possible with more advanced technology, but the use of such technology would

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* Id. at 52593-94. This estimate was based on 1976 capital and financing costs which have significantly increased since then.

be prohibitively expensive and unnecessary for a typical job shop.

Well before EPA began to implement its general pretreatment program, a number of municipal treatment authorities had been implementing local pretreatment programs applicable to industrial wastes, including metal finishing wastes, for years with considerable success. We believe that this body of experience has been largely ignored under the current scheme. The Metropolitan Sanitary District of the city of Chicago, for example, has had in operation an effective industrial waste control program since 1969. It has not experienced interference or pass-through problems at its treatment system plants. As another example, the City of Los Angeles and Los Angeles County Sanitation District have had a pretreatment program in effect since 1976. This was developed pursuant to a 1972 statewide program in California that requires all municipal districts to establish pretreatment standards necessary to ensure compliance with the POTW's permit requirements. The Los Angeles pretreatment program also has been successful, and there have been no interference and pass-through problems.

A significant aspect of the experience in Chicago and Los Angeles is that the industrial pretreatment limits that these municipalities have found appropriate and necessary are fairly moderate. These limits are readily met by most metal finishing companies without severe requirements for the installation of expensive pollution control equipment. There may well

be situations where more sophisticated controls for indirect discharges are needed. However, federal standards mandate such controls with no regard for the local POTW's capability nor a particular firm's historical efforts to clean up its effluents.

I would illustrate this by describing the system that I have installed at my own plant in Glendale, which is subject to the Los Angeles City regulations. The treatment for our plating rinses consists of cyanide destruction, neutralization, precipitation, and a filter press that creates a final sludge. On the cleaning line we have a separate system consisting of a clarifier, neutralization, and precipitation. While I do not wish to consume the Committee's time with this topic since it is more appropriately an issue under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901, I would point out that such sludge build-up is becoming an increasingly serious problem and can certainly be attributed, in part, to unnecessary pretreatment requirements.

At my plant in Glendale, we remove approximately ninety percent of the heavy metals in this manner. This system has cost our company approximately $260,000 in capital. In addition, the operating costs amount to approximately $106,000 annually, which is approximately eight percent of our company's total sales. In order to meet EPA's categorical standards, my costs would be twice as high. I submit, Mr. Chairman, that such costs are unnecessary. Further, my situation, which is by no means unique to the industry, underscores the point that

rigid national standards do not take into account the particular local situation, including previous efforts on the part of POTWs or the industry to obtain clean water objectives.

THE STATUTORY SCHEME

The basic scheme for pretreatment requirements was first established by Congress in Section 307 of the Federal Water Pollution Control Act Amendments of 1972. 33 U.S.C. § 1317. Section 307(b) of the Act authorizes EPA to develop "pretreatment standards for introduction of pollutants into treatment works . . . for those pollutants which are determined not to be susceptible to treatment by such treatment works or which would interfere with the operation of such treatment works." 33 U.S.C. § 1317(b). Congress was concerned with the discharge of pollutants that would damage, impair, or "interfere" with the efficiency of a municipal treatment works. Moreover, the legislative history indicates that Congress intended to prevent the discharge of pollutants that might "pass through untreated or inadequately treated into the Nation's waters."[5] Thus, the basic thrust of the statute is to prevent such "interference" and "pass-through."

The history of the 1972 Act also reflects a concern with overkill. The House and Conference Reports state that "[i]t is not intended that private pretreatment [facilities] be

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[5] H. R. Rep. No. 911, 92d Cong., 2d Sess. 113 (1972).

required as a substitute for adequate municipal waste treatment works."[6] This concern with overkill parallels the policy, discussed above, that pretreatment be required only where necessary to prevent interference and pass-through. Accordingly, Section 307(b)(1) specifically provides that if a POTW removes all or part of a toxic pollutant, "then the pretreatment requirements for the [indirect dischargers] may be revised by the [POTW] to reflect the removal of such toxic pollutant by [the POTW]." 33 U.S.C. § 1317(b)(1). This provision is the statutory mechanism to avoid requiring industries to build pretreatment systems that would duplicate treatment provided by municipal works resulting in increased or redundant treatment.[7]

An additional purpose of Section 307(b)(1) is to ensure that the removal achieved by the indirect discharger in concert with the removal achieved by the POTW equals the removal required of a direct discharger in the same industrial category:

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[6] Id.

[7] "Implementation of the Federal Water Pollution Control Act," H.R. Rep. No. 96-71, 96th Cong., 2d Sess. 40 (Comm. Print) (Dec. 1980) (hereafter "Oversight Report"). EPA has repeatedly emphasized the congressional intent underlying Section 307(b)(1) to prevent redundant treatment through the relaxation of pretreatment standards in light of POTW removal of pollutants. See, e.g., 44 Fed. Reg. 52603 (Sept. 7, 1979); 46 Fed. Reg. 9415, 9423, 9466 (Jan. 28, 1981); Dr. John W. Hernandez, Jr., Technical Statement for the Record Before the Subcomm. on Water Resources of the H. Comm. on Environmental and Public Works and Transp., at 46-47 (Feb. 24, 1982).

> "[R]emoval allowances must reflect the degree of reduction of pollutants achieved by the treatment works."

Conf. Rep. No. 830, 95th Cong., 1st Sess. 87 (1977).

Congress also intended that pretreatment standards, where necessary, be based on appropriate technology. Section 307(b)(2) refers to the revision and presumably the establishment of standards based on "control technology." 33 U.S.C. § 1317(b)(2). Section 307(b)(3) makes it clear that standards may be established for a "category" of sources, indicating that there can be differences in the appropriate pretreatment technology among various industries. 33 U.S.C. § 1317(b)(3). This means that the regulations must be based on appropriate control technology and that the standards must be economically achievable.

Finally, Congress directed EPA to establish national pretreatment standards that dealt only with "the most significant pretreatment problems."[8] Congress intended that, apart from such significant problems, pretreatment standards would be established by state and local governments. The Senate Report directed EPA to encourage state programs and "to reduce Federal involvement in this area to an absolute minimum."[9]

EPA's PRETREATMENT PROGRAM

Section 307(b) of the Act has been implemented by EPA through two interrelated regulatory programs: categorical pretreatment standards and general pretreatment standards.

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[8] H. R. Rep. No. 911, supra, at 113.

[9] S. Rep. No. 414, 92d Cong., 1st Sess. 61 (1971).

Electroplating Pretreatment Standards. The first EPA program under Section 307(b) consists of national categorical pretreatment standards containing discharge limits applicable to various categories of industrial users, such as the electroplating industry. These national categorical pretreatment standards for indirect dischargers typically are the equivalent of technology-based standards for direct dischargers.

Generally, EPA regulates an entire industry by setting effluent limits for both indirect and direct dischargers in an industry at the same time. However, with regard to the metal finishing industry, on September 7, 1979, EPA established limitations only for indirect dischargers by promulgating categorical pretreatment standards. 40 C.F.R. Part 413.[18] Moreover, although EPA estimates the total number of metal finishing plants to be over 31,000 and defines 45 operations as "metal finishing" operations involving wastewater potentially containing toxic metals (46 Fed. Reg. 34055-56, June 30, 1981), the Agency nonetheless limited its categorical pretreatment standards to eight subcategories relating only to the electroplating segment of that industry. 44 Fed. Reg. 52590 (Sept. 7, 1979).

On July 3, 1980, EPA published proposed amendments to the electroplating pretreatment standards and requested public comments, which were received from NAMF,

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[18] See 44 Fed. Reg. 52590 (Sept. 7, 1979).

individual industries, and public sewage agencies.[11] Despite the controversial nature of the standards, as evidenced by those comments, EPA promulgated the amendments to the standards in the final days of the Carter Administration.[12] EPA later extended the compliance date for the electroplating pretreatment regulations to January 28, 1984, in light of the uncertainty surrounding the interrelated provisions of the general pretreatment regulations, such as the removal credit provision, and in order to allow the Agency time to consider alternatives to the treatment technologies upon which the regulations are based.[13]

General Pretreatment Standards. The second interrelated pretrsatment program under Section 307(b) is contained in EPA's General Pretreatment Regulations, first promulgated in 1978. 40 C.F.R. Part 403.[14] These regulations provide an overall regulatory framework for pretreatment and contain: general discharge prohibitions that apply to all industrial users in order to prevent interference and pass-through; provisions for the adjustment of pretreatment standards through the grant of removal credits; and the requirement that local POTWs or states develop administrative mechanisms to enforce

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[11] 45 Fed. Reg. 45322 (July 3, 1980).

[12] 46 Fed. Reg. 9462 (Jan. 28, 1981).

[13] 46 Fed. Reg. 43972 (Sept. 2, 1981).

[14] See 43 Fed. Reg. 27736 (June 26, 1978).

the general discharge prohibitions as well as the separately published categorical standards.

In 1979 EPA published proposed amendments to the general pretreatment regulations.[15] Numerous comments were filed with EPA pointing out difficulties with the proposed regulations. For example, after reviewing the 1979 proposed regulations, municipal representatives uniformly concluded that the removal credit scheme was unworkable because it imposed too many restrictions.[16]

The controversy over EPA's pretreatment program came to the attention of Congress the following year. In 1980, hearings were held by the Oversight Subcommittee of the House Committee on Public Works and Transportation that revealed broad dissatisfaction with the pretreatment program by both POTWs and industry. Following those hearings, the Oversight Subcommittee issued a detailed report which confirmed that the complexity of EPA's removal credit regulations was leading many municipalities to conclude that these provisions were unworkable and that the entire pretreatment program should be restructured.[17]

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[15] 44 Fed. Reg. 62260 (Oct. 29, 1979).

[16] During 1980 and 1981 the Association of Metropolitan Sewage Agencies ("AMSA") sponsored a series of conferences entitled: "Removal Credits -- Fact or Fiction."

[17] Oversight Report, supra, at 59.

Nevertheless, on January 13, 1981, EPA promulgated final amendments to its general pretreatment standards, including provisions for removal credits.[18] However, due to the controversy and confusion surrounding the pretreatment program, the 1981 general pretreatment regulations were suspended for over one year. Underlying issues regarding these regulations remain unresolved.

THE NEED FOR REFORM

The heart of the problem with the current program lies in the categorical pretreatment standards. NAMF is committed to the goal of cleaning up the nation's waters but believes that the Act has not been implemented with adequate analysis and balance. The need for reform of the pretreatment program is confirmed by essentially three points, as discussed in more detail below: first, there is a tremendous amount of confusion in the industry and among sanitary districts concerning the pretreatment program, particularly in light of problems relating to removal credits; second, requiring compliance with the electroplating pretreatment standards by the present January 1984 deadline would inflict disastrous and unnecessary impacts on the electroplating industry, resulting in the closure (by EPA's estimates) of twenty percent of the job shop platers in the country; and third, these stringent

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[18] 46 Fed. Reg. 9404 (Jan. 28, 1981).

national standards are not necessary to protect the environment and provide no real benefit to water quality.

We believe that it is time to reassess the entire pretreatment program, and to consider the merits of returning control over the program to local municipalities and abandoning national pretreatment standards. Industry and municipal representatives have, for some time, been questioning the need for national categorical pretreatment standards. NAMF strongly believes that control over pretreatment standards should be returned to municipal sanitary authorities, which should establish such standards that are necessary to meet NPDES permits and other environmental requirements. Local control over pretreatment requirements would allow POTWs and industry to focus their attention on local problems. It will also avoid redundant treatment that will otherwise inevitably result from the program.

Confusion in the Pretreatment Program. As noted ealier, in 1980 the Oversight Subcommittee of the House Committee on Public Works Transportation held a series of hearings on the implementation of the Clean Water Act. Particular attention was given to the pretreatment program and the Subcommittee heard detailed testimony from municipal authorities as well as industry. Those hearings resulted in a detailed report, which was signed by virtually all of the senior members of the House Public Works Committee. In that significant report,

the Subcommittee concluded that a more reasonable approach to pretreatment "is absolutely necessary."[19]

In particular, the Subcommittee was troubled by the fact that the complexity of EPA's removal credit regulations was leading many municipalities to conclude that these provisions are unworkable. As the Subcommittee recognized, this would result in forcing industries to duplicate toxic control capabilities already present in muncipal treatment works -- a situation which Congress specifically intended to avoid through the statutory provision of Section 307(b)(1).[20] The Subcommittee thus concluded that fundamental changes to the pretreatment program are needed:

> The primary concern of the pretreatment program should be the quality of the water that is discharged from the municipal works. So long as a municipal treatment plant can meets its permit requirements, there is no rationale for Federal meddling in local decisions as to how this should be accomplished.[21]

Indeed, the Subcommitee went so far as to recommend a major change in the pretreatment program -- that is, that the use of EPA's national pretreatment standards be completely abandoned and that Section 307(b) be amended to allow pretreatment requirements to be established by local authorities on the basis of their NPDES permit:

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[19] Oversight Report, supra, at 59.

[20] Id.

[21] Id.

> Steps should be taken immediately to allow for the implementation of industrial pretreatment programs by municipal treatment authorities without further delay. In this regard, the Subcommittee recommends that the law be amended to allow pretreatment requirements for industrial discharges to municipal treatment plants to be established by local treatment authorities on the basis of their National Pollution Discharge Elimination System (NPDES) permit, and that use of national categorical pretreatment standards be abandoned.[32]

With regard to electroplaters, the pretreatment program is even more confused in light of EPA's intention to promulgate final metal finishing regulations "more comprehensive than the electroplating regulations, and...expected to supersede the electroplating pretreatment standards."[33] Similarly, in September 1981 EPA acknowledged that the electroplating standards themselves, as well as related provisions of the general pretreatment regulations, may be modified.[34]

In late December 1981 EPA also made public its contractor's report on options for possible reform of the pretreatment program -- JRB Associates, Inc., "Assessment of the Impacts of Industrial Discharges on Publicly Owned Treatment Works" (Nov. 20, 1981)(hereafter "JRB Report").[35] This

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[32] Id.

[33] 46 Fed. Reg. 34055 (June 30, 1980).

[34] 46 Fed. Reg. 43973 (Sept. 2, 1981).

[35] 46 Fed. Reg. 62098 (Dec. 21, 1981). NAMF would emphasize that none of the particular options contained in the JRB Report embodies the approach that NAMF would prefer. Options

(footnote cont'd)

report strongly supports a move in the direction of greater local control and decreased reliance on national categorical standards.[36]

The 1981 report itself addressed the key question of whether or not uniform application of categorical pretreatment standards is necessary or useful, and candidly acknowledged a lack of detailed data and reliance on a number of assumptions. The report emphasized that problems that exist with respect to water quality and sludge disposal are highly site-specific. JRB Report, supra, at 4-1. Such problems cannot readily be addressed by uniform, national standards, but instead must be dealt with by site-specific solutions. Consistent with this conclusion, EPA recently confirmed that it

> is actively considering alternatives to the current [general] pretreatment program, including a move in the direction of greater local control and responsibility for pretreatment requirements [as with removal credits]. We are also considering a decreased emphasis on mandatory, national technology based categorical standards.[37]

(footnote cont'd)

4 and 5, perhaps, are the closest to the approach endorsed by NAMF but both would involve the use of national categorical standards as a fall back in the event that the POTW does not comply with the technology of water-quality based requirements. Under NAMF's approach, if there were a water quality or a permit problem not being addressed by the POTW, the state or the EPA would develop a local remedy to deal with that specific problem.

[36] See id. at 62099.

[37] 47 Fed. Reg. 4520 (Feb. 1, 1982).

The Government Accounting Office ("GAO") also recently concluded that there was no assurance that categorical pretreatment standards "are equitable or even environmentally rationale." GAO, "Report to the Administrator, Environmental Protection Agency: A New Approach is Needed for the Federal Industrial Wastewater Pretreatment Program," at 8 (Feb. 19, 1982) (hereafter "GAO Report"). The GAO report further confirmed that "it is highly unlikely that the [pretreatment] program can be fully implemented within the currently established time frames" and cautioned against too rapid an effort to implement the program "[g]iven the many uncertainties about toxic pollution problems...." Id. at 1. Indeed, the GAO report recommended that Congress be advised that the deadline for implementing the pretreatment program cannot be met "until some significant problems and issues on toxic pollution are resolved." Id.

Another serious deficiency in the pretreatment program lies in the categorical standards' preclusion of the possibility for a variance based on consideration of the impact of a discharge on receiving water quality. One of the major purposes of the pretreatment provisions is to prevent the discharge of pollutants that pass through a municipal treatment works, since such untreated pollutants can affect receiving water quality. Conversely, if a pollutant is adequately treated by the works -- that is, the POTW is meeting its NPDES permit limits and is not violating water quality

requirements, and additional effluent reduction benefits as a result of pretreatment are minimal -- then these factors, among others, should be considered as grounds for a variance.

There are many other problems associated with the electroplating categorical standards promulgated by EPA, such as the fact that many of the limits are based on invalid data and secondary impacts have not been properly considered. I do not intend to consume time today on these more specific problems. The principal point is that the pretreatment program remains confused and fraught with problems, which only serves to exacerbate its impact on the electroplating industry.

Severe and Unnecessary Impacts on Industry from the Pretreatment Program. As stated earlier, the electroplating industry, to a large extent, is composed of small independent businesses with relatively little capital and small profit margins. Requiring these small and economically vulnerable job shops to comply with the electroplating pretreatment standards by January 1984 will require them to make substantial financial commitments immediately. Indeed, EPA's own estimates reveal that the standards are so costly and the job shops so economically vulnerable that the required compliance by January 1984 is likely to result in the closing of twenty percent of the job shop platers in the country.[28] Surviving shops can only continue to operate by bearing the burden

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[28] 44 Fed. Reg. 52594 (Sept. 7, 1979).

of approximately $1.5 billion in capital costs and nearly $500 million in annual operating costs imposed by the standards.[29]

This drastic economic impact is further exacerbated by the fact that EPA has not promulgated final standards for metal finishing -- a category that overlaps substantially with electroplating. Job shop platers operate in a highly competitive industry that is very price sensitive. EPA's purported economic analysis of the electroplating standards, while showing that twenty percent of the job shop platers might be forced to close as a result of the standards, fails to take into account the possibility that the surviving job shops would be impacted by business losses to metal finishing firms that currently are not facing a pretreatment standard deadline.

This drastic economic impact will not be mitigated by removal credits or Small Business Administration ("SBA") financial assistance, as suggested by EPA, since for practical purposes neither of these are available. As my earlier discussion of the confusion surrounding the pretreament program establishes, removal credits as a practical matter are not available. Even if new workable removal credit procedures were to be developed, those procedures must first be proposed for public comment and then EPA must consider the comments it receives. Only then can the agency promulgate new removal credit provisions in final form. Industries

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[29] Id. See pages 5-6 above.

cannot be certain that this procedure will result in final removal credit provisions by November of this year, which is only 14 months before the current effective date for the electroplating pretreatment standards.

Industry estimates are that a plant needs up to 30 months to complete the planning, purchasing, installation, and testing of pollution equipment, depending on the size and complexity of the plant. None of this can be accomplished with any certainty until specific discharge numbers to be obtained are known. Those numbers, or discharge limits, cannot be finally determined until removal credits are factored in. In view of all this, it is obvious that electroplaters will not have sufficient lead time in order to meet the January 1984 deadline taking into account removal credits. The GAO Report recently confirmed this conclusion:

> We believe it is highly unlikely that the [pretreatment] program can be fully implemented within the currently established time frames. Although EPA is conducting a regulatory impact analysis of the pretreatment program, the time frame for completing the analysis and selecting an option is very ambitious. Given the many uncertainties about toxic pollution problems, we are concerned about EPA's ability to resolve these issues in the relatively short time established.

GAO Report, supra, at 1. Moreover, industry cannot now predict which POTWs will apply for and receive removal credits after EPA's regulations are adopted in final form. Even if EPA promulgates final removal credit provisions by early 1983,

that would not protect electroplaters from substantial expenditures to prepare for pretreatment equipment and procedures that probably will be determined to be unnecessary.

Moreover, job shop platers are small businesses without a staff of environmental engineers on hand to plan, construct, and install needed equipment. For the vast majority of effective facilities, the nature of pretreatment equipment must be determined by a consulting engineer for each electroplating facility. The large number of electroplating facilities affected by the rules makes delays in the supply of certain pretreatment parts likely.

In addition, even the initial plant assessment phase of compliance with the pretreatment standards would involve in-plant process changes that require significant capital expenses. Most electroplaters have not conducted the design and engineering studies involved in the first stage of preparing to meet the standards, for several reasons. First, substantial removal credits simply will not be available to POTWs for substances discharged by electroplaters before the relevant design and engineering studies must be made. As (AMSA) and its individual members made clear in numerous conferences, the removal credit provisions in the general pretreatment rules were too cumbersome for POTWs to use. POTWs do not plan to grant removal allowances under suspended removal

credit regulations because they are too complex, cumbersome, and unworkable.[38]

In fact, many of the POTWs to which NAMF's members discharge their wastes have advised them to delay, until the removal credit problem is solved, the engineering design as well as equipment purchasing stages of preparing to comply with the general pretreatment rules. Engineering designs, after all, depend on the equipment that must be installed, and that in turn depends on the level of control that is required in light of available removal credits.

Finally, the prospect of SBA financial assistance as somehow mitigating the severe costs of the pretreatment standards is an illusory one. Nearly all electroplating facilities or small businesses have limited access to capital

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[38] As the GAO recently observed:

> Many POTW officials are critical of the removal allowance provisions [of the general pretreatment rules]. Several POTW officials have stated that the removal allowance [i.e., credit] provisions are unworkable, especially for large municipal systems. This opinion was frequently shared by the municipalities and POTWs we visited. Only one of these POTWs plan to grant removal allowances, although two others indicated that some allowances might be granted in the future. Officials at the other POTWs told us that they do not plan to grant removal allowances because calculating and awarding the allowances was too complex.

GAO Report, supra, at 10. See also Oversight Report, supra, at 59.

and, therefore, unusual financing problems. Loans guaranteed by the SBA, on which many electroplaters would have to rely when purchasing the equipment required to meet pretreatment standards, require extensive applications and are processed slowly. Moreover, SBA funds are currently very limited and virtually unavailable.

Lack of Benefit from Categorical Standards. At the outset, it is clear that much progress has already been made to date with national standards. The electroplating/metal finishing industry has already reduced its discharges by nearly seventy-five percent and will continue to do so through the implementation of local programs without the need for national categorical standards. For example, total toxic metals discharges to POTWs per year for metal finishing/electroplating have been reduced from 120 million to 32 million pounds per year, a reduction of over seventy-three percent. JRB Report, supra, at Table 1-1. These reductions will continue as a result of local programs even if national categorical standards are not put into effect.

In any event, the application of national categorical standards will result in no appreciable reduction in water quality violations where they exist. Table 3-1 of the JRB Report is quite revealing here. It shows that a full pretreatment program would reduce the number of violations by a very small degree. According to the JRB Report, the reason is

that, even with industry pretreatment, the remaining pollutant levels contributed by other sources (not regulated by the pretreatment program) are still high enough to cause the water quality criteria to be exceeded. Id. at 3-6. Because POTWs receive pollutants from domestic users, rain fall runoff as well as industrial users not subject to EPA's national standards, it is unrealistic to assume that the implementation of the current pretreatment program will properly address the problems that might exist.

Finally, as noted earlier, any problems that might exist regarding water quality or sludge disposal are site-specific rather than nationwide. Id. at 4-1. Since such problems must be dealt with by site-specific solutions, uniform national standards are neither effective nor necessary measures to deal with these problems.

As the foregoing discussion confirms, there is a need for reform of the pretreatment program. Such reform can best be accomplished through legislative change.

A PROPOSAL FOR LEGISLATIVE CHANGE

NAMF believes now is the opportune time for Congress to make changes in the existing pretreatment program, and we strongly support proposed amendments that allow the development of local pretreatment programs. Certainly for our industry, the timing is critical in view of its January 1984 deadline.

Rather than imposing national pretreatment standards across the board from which each source must seek a variance at the local level, Congress should permit the development of local pretreatment programs where municipalities have the administrative and technical capability and legal authority to operate such a program. This approach is consistent with the objectives of the Administration and organizations such as AMSA, although we recognize there are differences of opinion on the criteria to be used for determining whether or not a POTW will be authorized to develop a program. Moreover, as discussed earlier, the local approach is soundly supported by the Oversight Report, the JRB Report, and most recently the GAO Report.

NAMF endorses the concept of local control and increased flexibility in the pretreatment program, and we commend EPA for the positive step forward in recognizing the need for legislative change. We believe that it is the ultimate responsibility of a POTW to address the problems confronting its treatment system. Each POTW is required to obtain from EPA (or an approved state) an NPDES permit. That permit ensures that the POTW obtains certain treatment levels and meets water quality standards. Therefore, the POTW is in the best position to impose pretreatment standards in order to meet its compliance requirements and protect the integrity of

its treatment system. Each treatment system has unique problems, as do individual metal finishing firms, to address from a technical, environmental, administrative, and economic perspective. Rigid national categorical standards leave no flexibility in regard to those differing situations.

The issue of sludge contamination is sometimes associated with the need to develop a pretreatment program. We are not aware of any evidence that a significant number of municipalities are facing unmanageable sludge disposal problems due to industrial contamination. We believe that EPA's concern is directed at a problem that is best handled locally. Where sludge contamination does exist, it is often due to non-industrial sources that cannot be readily controlled. A New York study several years ago, for example, showed that eighty to ninety percent of metals in that City's treatment system was due to non-industrial sources such as domestic users and runoff from city streets.[11] Industrial pretreatment will have little or no beneficial impact in reducing sludge contamination in such cases. We believe that EPA and Congress must reexamine the relationship between sludge disposal problems and industrial pretreatment regulations.

NAMF also belives that Congress must reexamine the broader question of the intended structure and basis for the

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[11] Klein, et al., "Sources of Metals in New York City Wastewater," 46 Journal WPCF 2653 (Dec. 1974).

pretreatment program. As discussed earlier, EPA's general pretreatment program has been the subject of considerable controversy. Both industrial users and municipal sanitary districts have urged that EPA develop a program that is principally designed to prevent interference and pass-through (including compliance with the POTW's NPDES permit and water quality standards) that would avoid redundant treatment, and that would be largely implemented at the local level. The basic elements of such a program seem to be consistent with the legislative history of Section 307 as adopted by the Congress in 1972 and as amended in 1977.

In fact, the pretreatment program that has been developed by EPA is far more extensive than appears to be necessary. EPA has, in essence, said that there shall be national pretreatment standards applicable to all industrial users at "best available technology" levels. In establishing the industry standards, essentially no consideration is given to the amount of interference or pass-through in particular municipalities. No consideration is given to the extent to which municipal treatment systems effectively remove a particular pollutant on a consistent basis, or the extent to which municipal treatment systems have been satisfactorily enforcing less stringent local programs without experiencing any significant problems. Although EPA's general pretreatment regulations, in theory, provide for the granting of removal credits

reflecting consistent removal by a municipal treatment system, these regulations, as we discussed, are fraught with problems and confusion.

Thus, a fundamental question is raised as to whether or not a national technology-forcing program of the kind that EPA has developed is necessary and appropriate in every local setting to meet the goal of improving the quality of our nation's waters. The current approach has assumed that a strict BAT-based federal program should be established whether or not pretreatment is necessary, and then has unsuccessfully attempted to adopt some ameliorating features such as the program for variances and removal credits. We have the same problem with EPA's proposed legislation, which would retain categorical standards and add another cumbersome new waiver procedure. Thus, it fails to address the basic flaws in the current program.

We recognize there may be instances where a local POTW is either unable or chooses not to develop a local program. Certainly, in those instances, there needs to be some type of federal presence and perhaps federal standards are the proper vehicle. However, we submit that where the local POTW has the authority, expertise and desire, a locally developed pretreatment program is the most effective means for addressing water quality goals.

Such local programs can be developed on a case-by-case basis taking into account such factors as the number and

nature of indirect discharges and the individual histories of permit violations. As long as a POTW is in compliance or on a schedule to comply with effluent limitation requirements and the discharge from the POTW does not violate water quality standards, then that POTW should have the ability to develop and enforce a pretreatment program in lieu of categorical standards. Right now, such an opportunity does not exist in spite of the expertise of many POTWs.

We submit that this local approach is what is needed in the way of a pretreatment program. EPA's general regulations would assure that there were no sludge disposal problems and that the municipalities comply with their NDPES permits, which contain both technology and water quality based requirements. This would allow the pretreatment program to be based on local conditions and would be consistent with the congressional objectives of encouraging state programs, reducing federal involvement to a minimum, and avoiding redundant treatment. It would also emphasize treatment necessary to meet water quality requirements and not treatment for its own sake.

We believe that the pretreatment program would be far more successful and cost-effective if developed on a local level. Congress has recently funded the POTW construction grant program, a program that is sound. Centralized local municipal waste treatment makes sense from an environmental, technical, and economic viewpoint. However, we believe that it is folly to spend these billions of dollars on municipal

systems and then ask industry to spend billions more in redundant private treatment systems absent a local need for more treatment of specific wastes.

A targeted, local approach is the most cost-effective option. "Regulation of the POTW provides the opportunity for the POTW to meet its effluent limitations (whether water quality-based or technology-based) in the most cost-effective manner." JRB Report, supra, at 4-5. To put the matter quite simply, a targeted program applies resources to resolve a problem. An targeted program applies resources even where there is no problem. For example, if a particular POTW has high levels of cadmium in its effluent or its sludge, then a local approach should be implemented to eliminate that particular cadmium problem in the most cost-effective manner. If there is no problem at a particular POTW, which appears to be the case with the majority of POTWs in the country, then there is no need for any national or local pretreatment standards.

The basic ingredients for the approval of local pretreatment programs are already in place through EPA's general pretreatment programs. With this in effect there is no need for automatic, rigid national standards. Under the local control concept, such standards could always be imposed as necessary.

In conclusion, let me say that our commitment to a clean environment is as strong as our commitment to the overall

success of the industry. We know that we cannot have one without the other.

I appreciate this opportunity to present our concerns with the pretreatment program and will be happy to answer any questions or provide any additional information the Committee may desire.

William D. Wiggins
Immediate Past-President, NAMF

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April 22, 1983

The Honorable John H. Chafee, Chairman
Environmental Pollution Subcommittee
Committee on Environment and Public Works
United States Senate
Washington, D. C. 20510

RECEIVED APR 28 1983

Dear Senator Chafee:

The National Cotton Council respectfully submits this letter and requests that it be included as part of the record of your subcommittee's hearings on the Clean Water Act.

The Council is the central organization of the cotton industry, representing producers, processors, handlers, and manufacturers from the Carolinas to California.

At a recent annual meeting involving some 1500 industry leaders, the following resolutions on environmental quality and water law were unanimously adopted:

- Continue to work toward and support a clean environment with rules and standards under the Clean Air Act, Water Pollution Control Act, and other environmental laws that are reasonable, based on scientific facts, and do not hamper essential operations of the industry or adversely affect the nation's economic growth and development.

- Recommend passage of legislation which would return to the historical definition of navigable waters, give the Secretary of the Army final authority to issue Section 404 permits, and define wetlands in a reasonable manner.

There is an urgent need for EPA to finalize the proposed NPDES settlement agreement that was published November 18, 1982, so that industry can benefit from the necessary revisions when renewing permits.

Provisions under S.431 would inappropriately freeze all water quality designations as of January 1, 1983. This would prevent states from revising stream designations, either up or down, to reflect new data and information that becomes available. Congress is well aware that many of the original designations were made without sufficient data and that existing designations may be unattainable despite the application of best available technology (BAT) because of naturally occurring pollution, etc.

With regard to cotton production, farmers under the present law are faced with very excessive paperwork, time delays, and land-use restrictions in connection with the dredge and fill requirements under Section 404 of the Clean Water Act.

We appreciate your subcommittee's consideration of our views.

Sincerely,

Gerald B. Brewer

Gerald B. Brewer
President

GBB:bis

NEDA
CLEAN WATER PROJECT

National Environmental Development Association • 605 Fourteenth Street NW, Washington DC 20005 • 202 638-1230

J. WILLIAM HAUN, Project Chairman

May 19, 1983

Honorable John H. Chafee
Committee on Environment & Public Works
United States Senate
Washington, DC 20510

Dear Senator Chafee:

Attached is a statement which the NEDA Clean Water Project requests be entered into the record of testimony offered to the Committee concerning Senate Bills S.431 and S.432.

The NEDA Clean Water Project is a coalition of companies, associations and labor unions seeking changes to the Clean Water Act which will allow pursuit of the Nation's water pollution control goals while enabling more rapid economic development.

We offer the attached statement in hopes of making a positive contribution to the Committee's deliberations. We stand ready to answer any questions you may have concerning the statement.

Sincerely,

Jeffrey H. Conley
Project Officer

STATEMENT

Senate Bills S.431 and S.432
Relating to
The Clean Water Act
by the
National Environmental Development Association
Clean Water Project
May 5, 1983

This statement is submitted by the National Environmental Development Association's Clean Water Project, a non-profit coalition of industry, labor and agriculture, which seeks to achieve legislative and regulatory changes which will ease Clean Water Act uncertainties and restrictions without harming the nation's waters.

Our comments address some of the provisions of S.431 and S.432, as well as provisions which do not appear in these bills but which the NEDA Clean Water Project wishes to call to the attention of the Committee.

First, we will discuss those sections of the Clean Water Act addressed in S.431 amd S.432.

Authorization

We are encouraged that S.431 maintains the level of funding for state water pollution control programs. We would urge the Committee to resist any effort to reduce the level of support for the states.

There is an important resource issue, however, which is not addressed by the legislation: Construction Grants.

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Government data shows that publicly owned treatment works are the largest single source of water pollution in this country. It is, therefore, important that the Federal government continue and expand its financial assistance to construction of such facilities.

Compliance Deadlines

There is a genuine problem with complying with Best Available Technology Economically Achievable (BAT) and Best Conventional Technology (BCT) requirements when the Environmental Protection Agency is unable to develop effluent guidelines in a timely manner.

While S.431 recognizes the problem by allowing industries 36 months from date of promulgation of guidelines to come into compliance, the bill also imposes a deadline of July 1, 1987 by which all industries must be in compliance.

We recommend that industries be given 36 months from the date of promulgation of the effluent guideline to come into compliance without the imposition of arbitrary deadlines. While it is hoped that EPA will promulgate effluent guidelines by July 1, 1984, there is no assurance that deadline will be met. This would result in certain industries being given less than 36 months to comply. Such a timetable is not equitable and penalizes industries for reasons beyond their control.

S.432, introduced by Senator Randolph, solves this problem by not imposing any arbitrary deadline and uniformly allowing 36 months after promulgation to comply.

Two compliance deadline items are not addressed by either S.431 or S.432: 1) compliance deadlines for BAT permits based on Best Professional Judgement (BPJ) and, 2) the problem of industrial plants subject to two or more effluent guidelines.

BPJ Guidance

Many BAT permit decisions will not be based on categorical BAT guidelines but rather will be based on ad hoc case-by-case determinations called Best Professional Judgement. Deadlines for compliance must also be set for these determinations. The legislation should make clear that the 36-month compliance provision also applies to BPJ determinations.

Integrated Facilities

There are certain industrial facilities, referred to as integrated facilities, which will be covered by more than one guideline due to the nature of their effluent.

Because all guidelines are not promulgated at the same time, their integrated facilities will not be able to proceed with installation of pollution control measures until all of the guidelines are promulgated.

We believe S.431 and S.432 should be amended to allow compliance within 36 months after promulgation of all guidelines applicable to an integrated facility.

Pretreatment

S. 431 clarifies that pretreatment of conventional compatible pollutants is not a substitute for adequate design and operation of municipal treatment plants. We endorse this provision.

S.431 also provides for exemptions from federal pretreatment requirements for which local agencies can apply. We support this approach, too. However, we do find two problems inherent in S.431 which we urge the Committee to consider.

First, the language is so narrowly drawn that very few local treatment facilities will be able to qualify for the exemption. Many cities are on a compliance schedule and have not achieved actual compliance due to delays in obtaining federal grants. We recommend that the bill be revised to allow exemptions for treatment facilities in compliance and on a schedule for compliance.

Second, the bill does not allow municipalities to apply for exemptions at a later date, after achieving compliance. This leaves in place complex, burdensome federal requirements even after a municipality is in compliance and should have the opportunity to apply for an exemption.

Water Quality Standards

S.431, as drafted, may serve as an impediment to the process of returning to the states the ability to make determinations concerning water quality standards for bodies of water contained within the state.

EPA has issued proposed revisions to the Water Quality Standards which have been endorsed by ASIWPCA (Association of State & Interstate Water Pollution Control Administrators) and by the NEDA Clean Water Project. These revisions would provide states with needed flexibility to consider the economic and social costs of attainment and to make appropriate modifications to water quality standards.

Therefore, we urge the Committee to reconsider subsection 303(c)(2).

* * * *

Following are issues which are not addressed by either S.431 or S. 432 but which the NEDA Clean Water Project believes are urgently in need of attention by Congress:

Intermittent Streams

Congress should amend the Clean Water Act to make it clear that, except in limited instances, states should not apply water-quality-based standards to streams having only intermittent natural flow. States should apply limits beyond technology-based effluent limitations to intermittent streams on a case-by-case basis only when there is significant environmental benefit from the added control.

Agricultural Stormwater Runnoff

The definitions of point source in Section 502(14) should be amended to exclude all agricultural stormwater discharges. Existing authority and support should be continued for state and local programs (under Section 208 of the Clean Water Act) to control nonpoint source pollution which is identified as a water quality problem in local areas.

Permitting Issues

There are several issues which are not addressed by S.431 and S.432 relating to the processes for issuing permits to dischargers. Today, it is estimated that EPA is facing approximately 60,000 permit applications. Of the initial permits issued in the program, 44,000 were authorized without final effluent guidelines and will need to be modified when such guidelines are promulgated.

This log-jam in the permitting process imposes intolerable delay, uncertainty and confusion among both the permit-issuing agencies and the regulated industries. This confusion serves as a disincentive to industrial development and, therefore, to the creation of new jobs. It also works against achieving the environmental goals of the Act by discouraging plant modernization and incorporation of updated preventive technology.

The following proposals address this problem:

- o De Minimis Exemptions

  De minimis point source discharges and channeled stormwater runoff containing de minimis amounts of pollution should be exempt from NPDES permit requirements.

o National Environmental Policy Act

NPDES permit applications for new sources should be exempt from NEPA review. An exclusion under the Clean Water Act would make the law consistent with the procedures already effective in other environmental acts. Section 511(c)(1) of the Act should be amended to incorporate this exemption.

o NPDES Permit Life

The Clean Water Act should be changed to extend the maximum allowable life of an NPDES permit from 5 to 10 years to ease the permit log-jam and to reduce administrative burdens on industry, EPA and state agencies.

o Best Professional Judgment Guidance

Special statutory criteria should be considered when determining BAT by "best professional judgement:" (1) The age of the equipment and facilities involved; (2) the process involved; (3) the engineering aspects of the application and various types of control techniques; (4) process changes; (5) the cost of achieving such effluent reduction; and (6) non-water-quality environmental impact (including energy requirements). Use of these criteria will assure that case-by-case permit limits set by BPJ guidance are based on the same criteria as limits based on nationwide BAT guidelines.

o Ocean Discharge Criteria

The Act should be changed to enable EPA to deny NPDES permits only if unreasonable water quality degradation would occur from the discharge. Also, EPA should be required to limit the examination of ocean discharge impacts and the promulgation of guidelines only to aspects of potential ocean degradation that (1) are not already addressed under Section 402 and (2) are reasonably likely to occur from the type of operation for which a permit is sought. If projects are subject to an EIS requirement, any Section 403 determination should rely on EIS data and analyses and should not require redundant analyses.

o Dredged or Fill Permit Program

The scope of the dredged or fill permit program should be clarified, particularly in the area of "adjacent wetlands." Technically quantifiable criteria should be used to provide certainty in determining which situations do and which do not require a permit. The criteria defining "adjacent wetlands" should be limited to include only those areas which affect the attainment or maintanence of the environmental goals of the Act. "Adjacent" should be limited to areas contiguous to or bordering on water of the United States. Vegetation and saturation-related criteria should be dropped from the definition of wet-

lands, retaining only frequency of inundation and specific time periods between inundations. Substitution of "inundated lands" for "wetlands" would more clearly describe the area which the program is intended to cover.

Present functions of the Administrator of EPA under Section 404 should be transferred to the Secretary of the Army. EPA would participate in the decision process through the normal commenting and consultation procedures in subsections (m) and (q) of Section 404.

The general permit programs currently part of the dredged or fill permit program should be expanded to the maximum extent possible to incorporate inundated land areas.

The permit process should be streamlined, and decision-making should be centralized in the Corps of Engineers or the authorized state agency. Most important is a realignment of the relationship between the Corps and the U.S. Fish and Wildlife Service, to emphasize that the decision resides with the Corps and will not be de facto delegated to another agency.

Restoration of Natural Resources

We believe that penalties relating to restoration of natural resources should apply to real water degradation. Section 311 of the Clean Water Act should be amended to require that no penalty be assessed until spills of oil or hazardous substances are proven harmful to the environment; when penalties are assessed, the restorative process of nature should be taken into account. Spills that occur in artificial impoundments, from which a discharge is covered by NPDES permit, should be exempt from the penalty provision.

Zero Discharge

The language of Section 101(A)(1) should be amended to delete the 1985 attainment date and require a study to be conducted to determine the appropriateness of the "zero discharge" goal. Results of the study should be presented to Congress prior to the Act's next reauthorization.

BAT Modification

BAT modifications should be provided for toxic pollutants discharged in insignificant amounts which do not cause and are not likely to cause toxic effects. These modifications should be contingent on stringent tests already applicable to other pollutants. This can be accomplished by repealing the prohibitions in 301(g)(1) and 301(l).

Those states which have been delegated NPDES permitting authority also should have the authority to grant modifications.

BAT Determinations

In developing various categories of BAT effluent guidelines, the adequacy of BPT to remove toxic pollutants should be taken into account. The EPA Administrator should be allowed to set BAT as equal to BPT where control beyond BPT would not result in significant additional removal of pollutants.

Conclusion

The NEDA Clean Water Project is confident that the recommendations we are making for changes to the Clean Water Act will result in a more efficient and effective water pollution control effort in the United States.

Public opinion strongly supports a continuation of the nation's efforts to clean up our waters and to prevent future pollution. The NEDA Clean Water Project's recommendations are completely consistent with such wishes and will provide the added benefit of freeing industry of ambiguities, needless complexity and delays in decision-making which impedes economic development.

# # # #

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Statement of the

NATIONAL FOOD PROCESSORS ASSOCIATION

For the Record

of the

Subcommittee on Environmental Pollution
Committee on Environment and Public Works
U.S. Senate

on S. 431

April 27, 1983

STATEMENT OF THE

NATIONAL FOOD PROCESSORS ASSOCIATION

1983 AMENDMENTS TO THE FEDERAL WATER POLLUTION CONTROL ACT

The National Food Processors Association (NFPA) is pleased to submit comments on S. 431, a bill to amend the Federal Water Pollution Control Act (The Clean Water Act). NFPA is a scientifically and technically based trade association that represents about 600 member companies that pack processed-prepared fruits, vegetables, meats, fish, soups, baby foods, and specialty products, including canned, frozen, dehydrated, pickled and other preserved food items. Also included among the Association's members are companies that provide equipment, supplies and services to the food processing industry.

The food processing industry requires dependable and abundant supplies of potable water for use within its plants, and a major segment of the industry depends upon good water quality for the production of reliable sources of wholesome fish and shell fish. Thus, NFPA members support the Act's goal of attaining chemical, physical and biological integrity of the nation's waters. This national goal requires industrial and municipal dischargers to provide effective treatment of their wastewaters before discharge into receiving waters. To the best of our knowlege, all NFPA member food processing plants are in

compliance with the provisions of their individual NPDES permits.

With every good statute, implementation reveals areas where modifications are necessary to ameliorate problems encountered during administration and enforcement. We believe that S. 431 identifies most of the areas where amendments are needed.

Section 2. AUTHORIZATION

NFPA supports reauthorization of the Federal Water Pollution Control Act, but has no position on timing or funding levels.

Section 3. CHESAPEAKE AND NARRAGANSETT BAYS

NFPA philosophically supports federal and state efforts to protect the estuaries and bays which are vital to the production of the nation's diverse variety of seafoods and shellfish.

Section 4. COMPLIANCE DATES

NFPA supports extending the deadline for compliance with BCT effluent guidelines from July 1, 1984 to a reasonable future date. The Environmental Protection Agency (EPA) is not expected to issue final BCT effluent guidelines until late 1983. If the final BCT guidelines require greater treatment than now in place, at least three additional years from the date of promulgation will be needed for compliance.

Section 5. OCEAN WAIVER

No position.

Section 6. WATER QUALITY STANDARDS

NFPA opposes this amendment. In our view, it would be a mistake to write into federal law a provision that would prohibit changes in designated water body uses. When most water body uses

were designated, it was not known what level was actually attainable, and many uses were set at unattainable levels. As new data about the attainability of a designated use become available, the states should have the flexibility to change the designation based on the more reliable data.

Section 7. PRETREATMENT - Subsection (a),(b) and (c)

Since NFPA members discharge traditional conventional pollutants only, they would not be affected by Subsections (a) (b) and (c) of Section 7 which apply to EPA's categorical pretreatment regulations for the control of toxic pollutants. However, NFPA supports amendment of the Act to provide local POTW officials the authority to manage their pretreatment programs for toxics if they can demonstrate to EPA that water quality standards will continue to be met without impairment of sewage sludge usage.

Section 7. PRETREATMENT - Subsection (d)

NFPA supports the intent of Section 7(d) which is to prohibit EPA from requiring pretreatment of conventional pollutants as a substitute for adequate municipal treatment. However, the present wording of Section 7(d) is confusing and needs to be clarified. We believe that the phrase beginning after the word "section" on line 23 of page 13 and continuing through the word "owned" on line 1 of page 14 is out of place. This phrase we believe, was intended to be placed after the word "dischargers" on line 3 of page 14.

We are concerned that the phrase "all applicable requirements of local pretreatment programs approved under

subsection (b) (8) of this Section" (emphasis added) on lines 21 and 22 of page 13 could nullify the intent of this amendment which is to prevent the EPA Administrator from requiring pretreatment of conventional pollutants as a substitute for adequate municipal treatment. Many local pretreatment programs already contain ordinances that require pretreatment of conventional pollutants that are a substitute for adequate municipal treatment. By using this wording in the amendment, the Congress is sanctioning existing and future local pretreatment programs that do or may result in shifting the compliance cost burden from the community as a whole to industrial dischargers of conventional pollutants. We recommend language clarifying that compliance with the federal pretreatment prohibitions (See 40 CFR 403.5) would protect conventional waste dischargers from unnecessary treatment requirements.

We recommend that Section 7(d) be revised to read (--- = NFPA proposed deleted words from revised amendment; underscoring = NFPA proposed added words):

(d) Section 402 of the Clean Water Act is amended by adding at the end thereof the following new subsection:

"(m) In any case where a discharger of conventional pollutants identified pursuant to section 304(b) (4) of this Act is in compliance with ~~all applicable requirements of local pretreatment programs approved under subsection (b) (8) of this section~~ federal pretreatment prohibitions and with those provisions of local programs approved under subsection (b) (8) of

this section which assure compliance with such federal pretreatment prohibitions, the Administrator shall not require, as a condition of a permit under this section, pretreatment of such conventional pollutants by such dischargers as a substitute for municipal treatment adequate to meet the requirements of a permit issued under this section for a treatment works (as defined in Section 212 of this Act) which is publicly owned. Nothing in this subsection shall be construed to limit or otherwise affect the authority of the Administrator under section 307 and 309 of this Act or of state and local authorities under sections 307(b) (4) and 510 of this Act, to relieve such treatment works of the responsibility to meet requirements established under this Act, or to preclude such works from pursuing whatever other options are available to comply with permits issued under this section."

EPA funding for construction of POTWs is decreasing. At the same time, EPA and state enforcement officials are seeking greater POTW compliance. With reduced federal funding, NFPA expects many POTW officials to seek to bring their facilities into compliance without significant new capital investments. Our industry's concern is that one of the first actions POTW officials will take is to request their food processing users to pretreat or disengage. But by requiring food processing users to

pretreat or disengage, the POTW officials are changing their rules and shifting the cost burden of compliance from the entire community to the shoulders of the food processing plants. Our suggested revision of Section 7(d) would prohibit EPA from requiring pretreatment by industrial dischargers of conventional pollutants, provided that the industrial plants are in compliance with the prohibited discharge regulations established by EPA (40 CFR 403.5). These regulations which NFPA supports prohibit the introduction of pollutants into POTWs that create a fire or explosion hazard, cause corrosive structural damage, cause obstruction to flow, or that pass through or cause interference.

Our recommendation is consistent with congressional intent as stated in the Conference Report accompanying the 1972 Act:

> "Pretreatment of biological waste that is compatible with the treatment provided by a publicly owned waste treatment plant into which such waste is introduced may not be necessary... In no event is it intended that pretreatment facilities be required for compatible wastes as a substitute for adequate municipal waste treatment works." (Leg. History; 1972 FWPCA; Vol. 1; Page 313).

Section 8. CIVIL PENALTY

No position.

Section 9. PARTIAL NPDES PROGRAM APPROVAL

No position.

Section 10. AWARD OF FEES

No position.

Section 11. REPORTS TO CONGRESS

NFPA supports this proposed amendment which would require EPA to submit reports to Congress on the control of toxics discharged into POTWs and on the effects and methods of control of non-point sources.

FEDERAL COMMON LAW

A provision not proposed by S. 431 but discussed at length at the hearings would allow court actions to be brought against permittees under the recourse of federal common law. NFPA opposes such a provision. We agree with the U.S. Supreme Court's 1981 decision in City of Milwaukee vs. Illinois that federal common law is not necessary in the Federal Water Pollution Control Act "because the law is so comprehensive". Recipients of permits issued under the Clean Water Act must be assured that commitments and expenditures will be set for a reasonable period of time and not subject to change without due course.

EPA currently has the authority to modify or terminate a permit when conditions are not met. We believe the Act and EPA's implementing regulations contain sufficient opportunity for interested parties to express their views when the discharger requests the permit and again when it must be renewed.

The National Food Processors Association appreciates this opportunity to comment on S. 431. However, since it is our understanding that the Subcommittee plans another hearing after a new EPA Administrator takes office, we would like to reserve the right to submit further comments after testimony presented by the Administrator.

Statement

of

The National Rural Electric Cooperative Association

Presented To The
Subcommittee on Environmental Pollution
Committee on Environmental and Public Works
United States Senate

April 14, 1983

This statement is presented on behalf of the National Rural Electric Cooperative Association (NRECA). NRECA is the national organization representing nearly 1000 non-profit cooperative electric systems which deliver power to over 25 million people in 2600 out of 3100 counties in the United States. These consumer-owned electric systems serve nearly 75 percent of the total U.S. land area, which for the most part is sparsely populated, containing only 10 percent of the total U.S. population.

Because these cooperative systems function to both generate and distribute electricity, they are greatly affected by many programs under the Clean Water Act. While NRECA wholly supports the objectives of the Act, the cooperatives have experienced some difficulties with some of its provisions. The following comments and recommendations represent our views on extending the Act in connection with S. 431 and S. 432.

Compliance Dates Must Be Extended

The cooperatives and other direct dischargers have successfully undertaken responsibilities mandated to them under the Act. According to a November 1980 General Accounting Office report, direct dischargers had over a 90 percent permit compliance rate. As a comparison, less than 15 percent of the publicly owned treatment works were meeting their permit requirements. Nonetheless, in spite of all-out efforts, effluent limitation compliance deadlines specified in Section 301 of the Act remain technically and economically unachievable. Accordingly, provisions contained in S. 432, Section 2, which extend these unrealistic compliance deadlines, are enthusiastically supported by NRECA.

Water Quality Standard Minimum Use Designation Must Remain Unrestricted

S. 431, Section 6, would "freeze" as a minimum use the designated stream use existing on January 1, 1983.

In other words, Section 6 is an "anti-downgrading" provision, the underlying presumption of which is that all water quality standards established on that date are the best possible - for today and for the future - in view of social, economic, and environmental considerations. In some cases, this presumption is clearly erroneous. Even today, there are waters having use designations that simply cannot be attained due to their poor capacities to assimulated pollutants from natural origins, such as nonpoint source runoff from areas untouched by man. Also, there are waters whose optimum use, the use most beneficial to society while restoring and maintaining chemical, physical and biological integrity, will change due to economic growth and population changes. In these circumstances, stream use modification resulting in less stringent criteria would be most beneficial by allowing for needed economic growth and at the same time achieving the objectives of the Act.

Moreover, industry and in particular utilities have done an outstanding job in employing best state-of-the-art control technology to eliminate pollutants from their discharges, and they will continue to do so. As a result, our nation's water quality has and will continue to improve. However, to enact the "anti-downgrading" provision of S. 431 is to ignore realities which prevent and will continue to prevent attainment of some present stream standards at any feasible cost and effort. Because new source permit requirements for non-attaining use waters are very restrictive, this provision would actually operate to stop the installation of the most modern facilities equipped with the utmost in pollution control equipment, while older facilities with less effective pollution control devices remain operational. Clearly, to add this "anti-downgrading" amendment to Section 303 of the Act would impair our overall efforts to improve our water quality.

Prevailing Parties In Judicial Proceedings
Under Section 509 of the Act
Should Not Be Awarded Litigation Costs

S. 431, Section 10, would allow a "prevailing or substantially prevailing party" to recover litigation costs (including reasonable attorney and expert fees) where appropriate in lawsuits challenging agency decisions.

Although this proposed amendment, no doubt, has a well intended purpose, its practical result would be to encourage parties to litigate even insignificant issues in hopes of only substantially prevailing, thereby becoming eligible to receive cost reimbursement. Thus, activities including rulemakings would be unnecessarily impeded, and agency effectiveness would be severely emasculated.

On the other hand, individual parties aggrieved by violations of the Act have redress for litigation costs under Section 505. Especially in view of this existing provision, Section 509 should not include the awarding of fees to the detriment of agency function.

The National Pollutant Discharge Elimination
System (NPDES) Program Should Include
An Optional Ten Year Permit

Experience has shown that the NPDES permit renewal process is oftentimes extremely long and burdensome. With renewals required every five years, the procedure is almost a continuous endeavor. To eliminate this unnecessary burden, discharges should be given the option of receiving a ten year permit in lieu of the current five year requirement.

Conclusion

The water quality standard minimum use anti-downgrading provision and the amendment providing for litigation fees to winning parties in actions challenging the agency included in S. 431 would be counterproductive to efforts

to further improve our water quality. However, provisions extending compliance deadlines for direct dischargers in S. 432 provide a realistic means of achieving objectives of the Act. Additionally, to relieve dischargers of needless regulatory burdens during permit renewal, an extension of the Act should include an optional ten year NPDES permit program.

Respectfully submitted by

Kae Cronmiller
Environmental Counsel
National Rural Electric
Cooperative Association

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

TESTIMONY SUBMITTED BY THE

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

ON THE

CLEAN WATER ACT AMENDMENTS OF 1983 (S. 431)

TO THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

APRIL 6, 1983

The National Society of Professional Engineers (NSPE) is pleased to submit comments on the Clean Water Act Amendments of 1983, S. 431. Our Society was founded in 1934 as an organization dedicated to advancing the social and professional environment of the engineering profession and to serve the public welfare by offering engineering viewpoints on matters of public policy in which engineering background and expertise are pertinent. The Society is composed of 80,000 members engaged in virtually every aspect of engineering practice and has affiliated state societies with similar purpose in every state and more than 500 local chapters.

We wish to direct our comments to the specific provisions of S. 431 which are of greatest interest to the engineering profession.

The Clean Water Act Amendments of 1983 propose in Section 2 to provide levels of funding for the continuation of the various programs contained in the original legislation. In general, we support these funding levels, particularly as they relate to research and training.

There is a continuing need for the government to assist in and encourage research into "the causes, prevention, reduction and elimination of pollution." Equipment manufacturers and suppliers, engineers, contractors and other participants in this field are often willing to accept only very limited risks in the utilization of new techniques, equipment and processes, due primarily to the potential for litigation. Therefore, as long as the program continues to operate in a climate where the potential for litigation is high, research and testing must be achieved at least in part through government programs.

The National Society of Professional Engineers also strongly supports efforts to train more personnel to properly maintain and operate treatment plants. Design engineers are extremely sensitive to this need, because they are often held responsible when a plant does not function in accordance with design standards. However, in many cases such deficiences would not arise if qualified personnel were operating the plant. Federally assisted training programs must be continued in order to provide grant recipients with a larger pool of qualified personnel.

For such programs to be effective, however, the agency should have reliable information on the need for additional qualified professional and technical personnel, and such information should be updated on a regular basis. It is important to have an accurate understanding of the current shortage, and to know when that shortage has been met. A number of public and private agencies are attempting to forecast the need for engineers in future years, and EPA officials might be well advised to work with these agencies.

With respect to Federal grants to state and interstate agencies for the administration of the program, we believe it is essential that current funding levels be maintained. We are all aware of the severe economic

pressures facing the states. With the planned reduction of the Federal share of construction grants from 75 to 55 percent, other reductions in agency program participation, and strong encouragement for state delegation of program responsibility, the cost of administration by the states will continue to be significant. At the very least, current funding levels should be continued.

A recent General Accounting Office report (Potential Impacts of Reducing the Environmental Protection Agency's Budget, December 30, 1982) emphasized the consequences of a reduced Federal role. In part, the GAO report noted that "States indicated that if State funds are not substituted for declining Federal grants, their State environmental activities may be reduced, or delegated portions of those programs may be returned to EPA or both. If this happens, the quality and consistency of environmental programs may differ significantly depending on differing State economic conditions, perceptions of industry needs and influence, environmental commitment, and other factors."

While the points raised by GAO are applicable to environmental programs in general, they are especially significant for the Clean Water Act and its administration.

The proposed amendment to Section 112(c) has to do with continued funding of certain training and scholarship programs. While we view these as desirable, the Federal role in those programs is not as important as is the case in the other efforts funded under the Clean Water Act. The training and scholarship programs in question lend themselves well to university-industry relationships or similar relationships involving state and local government with industry and/or universities.

Although we do not question the importance of programs related to Clean Lakes, we would suggest that in this instance the level of Federal

participation be reduced from the existing 70 percent to 50 percent. This program is, for the most part, primarily intrastate in nature and the responsibility for its continuation should be shared to a greater degree by the states.

Section 4 deals with the extension of certain deadlines. The extensions of both the BAT (Best Available Technology) and BCT (Best Conventional Technology) deadlines probably are advisable. However, this is not the first extension of these deadlines, and the credibility of any deadline becomes suspect with its continued extension. Despite our misgivings, we feel that our only realistic alternative at this point is to endorse a delay in the deadlines. However, we certainly will be less supportive of further extensions. The agency has had a full decade to develop a workable program to meet the Act's goals. Those goals should be achievable without any future extensions of the deadlines.

Section 6, which addresses Water Quality Standards, states that such standards should "maintain as a minimum use the designated use existing on January 1, 1983." There are at least two reasons why such a requirement is impractical and should be deleted. First, there are a number of instances in which the designated use has been set unrealistically high, sometimes with the notion that a dry ditch can be made into a fishery or in an effort to inflate needs to justify a greater share of the funding allocation. Secondly, there may in fact come a time when a stream's designated use should be modified downward as a result of any one of several unforeseen events. Such a modification should be related to developments that are site specific. Where such revisions are necessary, the prohibition in S. 431 would work to the detriment of the community involved.

We do not, however, support indiscriminate reductions in stream use designations. We do believe that a mechanism must be developed which will

provide for reasonable revisions on a case-by-case basis.

S. 431 contains extensive language relative to pretreatment. While we support the general thrust of the bill in this area, certain provisions are too inflexible. When a publicly owned treatment works (POTW) can demonstrate an effective pretreatment program and treatment plant performance, it should be permitted the flexibility of setting the limits relating to discharge in its own sewer system. Furthermore, the 120-day window for participation in a modification process is inappropriate. Such opportunity should be available at all times. The requirements associated with that modification appear reasonable. They should, as a guide, be such that water quality is not disturbed by such modifications.

The National Society of Professional Engineers is in basic agreement with the pretreatment provisions of the proposed amendments. We believe that a workable pretreatment program should include the authority and responsibility of EPA to issue categorical pretreatment standards and regulations applicable to those toxic or hazardous wastes which, if introduced untreated into POTWs, would result in operation upset or environmental degradation. Pretreatment of those toxic or hazardous wastes would be the responsibility of their generators.

Other than those toxic or hazardous wastes requiring categorical standards and regulation, the responsibility for pretreatment of priority pollutants should rest with the POTW. Publicly owned treatment works should be required to institute pretreatment programs as needed to assure that priority pollutants (and conventional pollutants as well) are not discharged in amounts which would result in violation of permit or regulatory requirements. This would require individual POTWs to develop and implement agreements with dischargers of priority pollutants in toxic amounts which will (or may) cause

the POTW to exceed its permitted limits.

The reason this must be a local decision rests with the volume of priority pollutants and its relationship to the total waste to be treated. The local POTW may be able to treat a modest discharge if the POTW itself treats a substantial volume of waste by comparison. On the other hand, a small plant with a small total volume would not be capable of treatment of the priority pollutant in which case the agreement with the discharging industry would in all probability require pretreatment by the industry itself. Further, the cost of disposing solids, screenings or sludges containing toxic materials should be borne by the discharger, whether through an on-site pretreatment operation or as a function of the POTW treatment system.

Enforcement of the procedures and practices instituted by the individual POTWs would be conducted through the issuance or renewal of the NPDES permit or the approval of the industrial waste permit.

We believe that this general outline constitutes a sound pretreatment program. It deals forthrightly with toxic or hazardous wastes but at the same time reserves to the local POTW and its industrial constituents a means by which they can resolve problems which are local in nature and whose solutions depend on local conditions. Associated with it should be a regulatory and procedural mechanism based on reason and which assures protection of the public health and welfare. The approval of the local pretreatment program by EPA or the state is sufficient to meet those standards.

With respect to partial National Pollutant Discharge Elimination System Program Approval (Section 9), we would tend to support the concept as proposed. Previously we opposed the requirement that a state commit to assumption of the total program in a five year period, and we felt that such a requirement would hinder, rather than encourage, state delegation. This approach meets our objections. Given the fiscal problems encountered by many, if not most states, it does allow a degree of flexibility in their assumption of the program.

We appreciate the opportunity to submit this statement for the Subcommittee's consideration.

February 2, 1983

Draft Report of the Committee on
Construction Grants and Loans - NSPE/PEPP
"COST OF CLEAN WATER - IMPACT ON SMALL COMMUNITIES"

A substantial backlog of necessary water pollution control projects in small communities and scheduled reductions in the Construction Grants program make it likely that many small communities will have to construct their improvements with reduced or no grant support. This may place the cost of wastewater treatment outside the reach of many small communities.

The use of less costly methods of wastewater treatment such as lagoons or trickling filters, which may be permitted where they do not cause water quality degradation, does reduce user costs. This substitution, however, will not offset reductions or the elimination of grant support. Low interest loans, such as the 5%, 40 year loan available through the Farmers Home Administration, in combination with a 55% grant, can yield user charges comparable to those under the current 75% grant program. However, we view the recent reductions in federal aid as a trend toward zero grant support. This paper evaluates the impact of that trend on small communities of 25,000 or less.

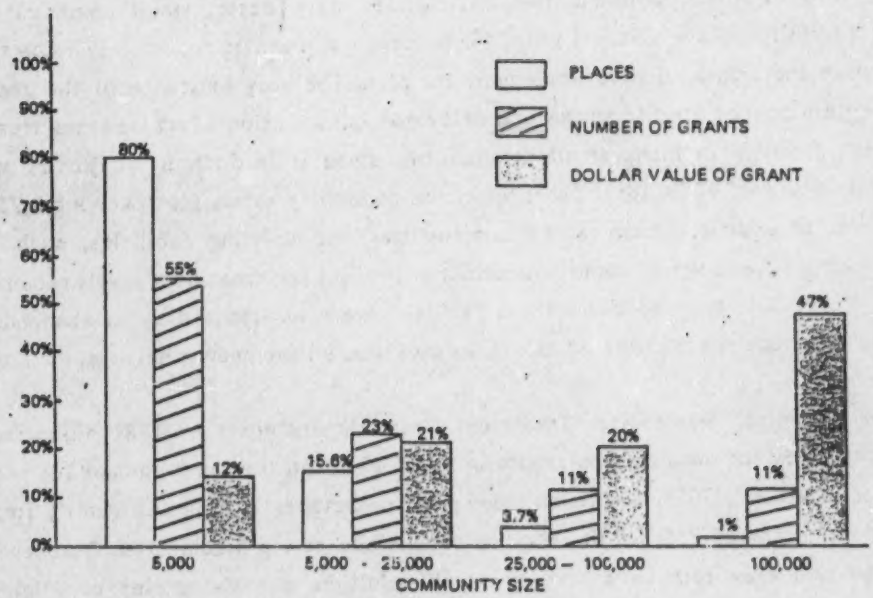
Background

From 1972 to 1980, the heyday of the construction grants program, the federal government obligated over $29 billion for the construction of water pollution control facilities. Wastewater treatment plants of less than 1.05 mgd constitute 79% of the number of treatment plants in the U.S. but account for only 8.4% of the total treatment capacity. Treatment plants over 50 mgd comprise only 0.6% of the number of treatment facilities while accounting for 38.8% of the total U.S. wastewater treatment capacity (Feliciano, 1982). In order to achieve the maximum benefit for pollution control dollars spent, grant monies were intentionally directed by Congress and EPA toward the larger dischargers. As shown in Figure 1, only 31% of the grant money went to communities with populations under 25,000 and only 12% went to communities of under 5,000, despite the fact that such communities represent 95.6% and 80% respectively of the total number of communities, and contain half of the country's population.

Many factors have contributed to the substantial backlog of wastewater treatment facility needs in small communities. Grants were awarded based on state

FIGURE 1

DISTRIBUTION OF PLACES, NUMBER OF GRANTS AND GRANT DOLLARS BY COMMUNITY SIZE



Source: EPA 1990 Preliminary Draft Strategy for Municipal Wastewater Treatment January 1981

priority lists which tend to favor larger communities due to population points, volume of discharge and other factors. In addition, the EPA regulations in effect during the 1970's tended to favor regional treatment plants as opposed to smaller local treatment facilities. EPA required extensive documentation to justify the need for sewers in order to obtain grant support, and otherwise made facilities planning in small commmunities difficult. In many cases, small communities could easily obtain a Step I grant for preparing a planning report only to be too low on the priority list to implement the plan. The very existence of the grant program tended to discourage and delay the construction of wastewater treatment facilties in many small communities since it is difficult to justify the expenditure of 100% local funds when the possibility exists for receiving a 75% grant. In addition, many small communities had existing facilities, such as trickling filters, which could not consistently meet the treatment levels required by PL 92-500. In some cases those facilities were anticipated to be abandoned and therefore not maintained as well as they would have been otherwise.

The Municipal Wastewater Treatment Grant Amendments of 1981 authorized $2.4 billion for construction grants in fiscal 1982 and the same amount for each year after until 1985. Grants awarded prior to October 1, 1984 will qualify for a federal grant of 75% of the eligible costs while new projects after October 1, 1984 will only receive a 55% grant. In addition, the categories of eligible projects will be reduced after October 1, 1984 and new sewer construction will be ineligible. Thus, it appears that the Construction Grants Program is going to be phased out, placing the burden of providing wastewater treatment back on the local community and, ultimately, the individual users.

The costs of providing wastewater service have increased substantially over the years as higher levels of treatment have been required. Smaller communities are particularly subject to high treatment costs for a number of reasons. Frequently located on smaller streams which are classified by states for higher water quality levels, they may be required to construct more expensive advanced treatment systems. In addition, small communities generally have lower per capita revenues, lower bond ratings and are required to pay higher bond interest. Many small communities lack centralized sewer systems entirely and thus are faced with the added cost of building sewers.

In addition to reducing the federal share of grants, the Municipal Wastewater Treatment Grant Amendments of 1981 revised the definition of "Secondary Treatment" to include oxidation ponds, lagoons and trickling filters when water quality will not be adversely affected. These processes which do not consistently provide the same level of pollutant removal as the PL 92-500 definition of secondary treatment facilities are less costly to construct and operate.

Method

The impact of the reduction and elimination of the grant program on costs per household in small communities is evaluated for communities with treatment plant design flows of .01 mgd to 4 mgd, utilizing conventional secondary processes, trickling filters or waste stabilization ponds. The cost of sewer construction is not included in this evaluation. It is also assumed that existing wastewater treatment facilities cannot be utilized and that a new treatment facility must be built.

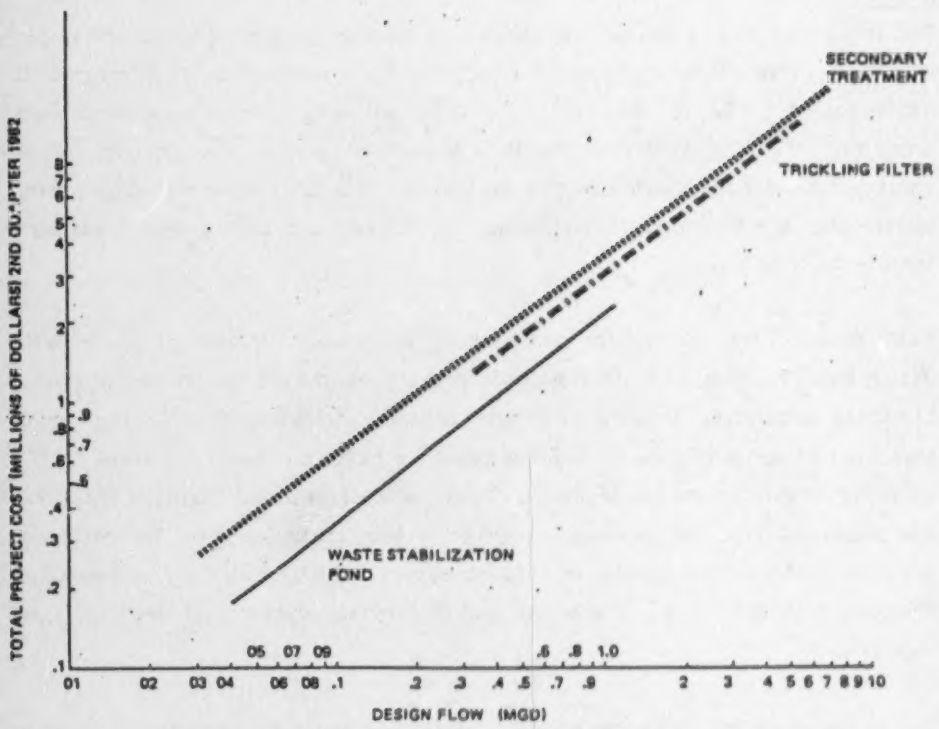
Total project cost curves for constructing wastewater treatment plants with design flows ranging from .05 mgd to 4 mgd are estimated for treatment plants providing secondary treatment, plants utilizing trickling filters, and waste stabilization ponds (Figure 2). Building costs are based on the EPA manual "RFD-22 Construction Costs for Municipal Wastewater Treatment Plants: 1973-1978" and include 27.9% for planning, engineering and contingencies. The costs are updated to the second quarter of 1982 based on the EPA Small City Conventional Treatment (SCCT) index. The waste stabilization pond cost includes a nominal land cost.

The range of design flows for trickling filters and waste stabilization ponds were limited by the availability of construction cost data as well as practical considerations. As shown in Figure 2, the cost for constructing a waste stabilization pond or trickling filter is less than that for contructing a secondary treatment facility. Since the secondary treatment curves were developed by EPA using construction costs for existing secondary plants, including some trickling filter facilities, the secondary treatment curve is probably lower than it would be if trickling filters had been excluded.

Local costs for debt retirement for each type of treatment facility are calculated three ways: no federal grant assistance, a 55% federal grant and a

FIGURE 2

TOTAL PROJECT COST VS. DESIGN FLOW


SECONDARY TREATMENT
TRICKLING FILTER
WASTE STABILIZATION POND
TOTAL PROJECT COST (MILLIONS OF DOLLARS) 2ND QUARTER 1962
DESIGN FLOW (MGD)
.01 .02 .03 .04 .05 .06 .07 .08 .09 .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 2 3 4 5 6 7 8 9 10

75% federal grant. The annual cost for debt retirement of the local share is based on municipal bond sales of 25 years at 10%.

User cost for debt retirement in each case is then calculated assuming that the treatment plant is being operated at 75% capacity with average household flow based on 3 persons per household and 120 gallons per capita. Table 1 indicates the service population and number of households corresponding to selected design flows.

TABLE 1
Population and Households
Served at 75% Design Capacity

Design Flow (mgd)	Population at 75% Capacity	Number Households
0.05	313	104
0.1	625	208
0.5	3125	1042
1.0	6250	2083
2.5	15625	5208
4	25000	8333

Operation and maintenance (O&M) costs, including administration costs, are estimated for secondary treatment and trickling filter plants with design flows of 0.05 mgd to 4 mgd based on the EPA Manual "RFD-22 Operation and Maintenance Costs for Municipal Wastewater Facilities". The costs are updated to the second quarter of 1982 based on the EPA OMR (Operation, Maintenance and Repair) index. An operation and maintenance cost curve for waste stabilization ponds was estimated based upon existing facilities in Michigan since comparable information was not contained in the EPA report. Table 2 contains the estimated annual operation and maintenance cost for selected design flows for each facility. As would be expected, trickling filters and waste stabilization ponds generally have lower O&M costs than secondary treatment facilities. The O&M for a 1 mgd waste stabilization pond, however, is estimated to be higher than that for the comparable secondary or trickling filter facility. This may be due to the limited amount of data used to develop the curve.

Table 2
Estimated Annual Operation and Maintenance Cost for
Secondary, Trickling Filter and Waste
Stabilization Pond Facilities

Design Flow (mgd)	Secondary[1]	Trickling Filter[2]	Waste Stabilization Pond[3]
0.5	$ 11,900	—	$ 7,000
0.1	21,582	—	13,800
0.5	71,940	$ 65,945	64,000
1.0	119,900	101,915	125,000
2.5	238,700	214,830	—
4.0	327,305	297,550	—

1. FRD-22
2. FRD-22
3. Actual facilities in Michigan

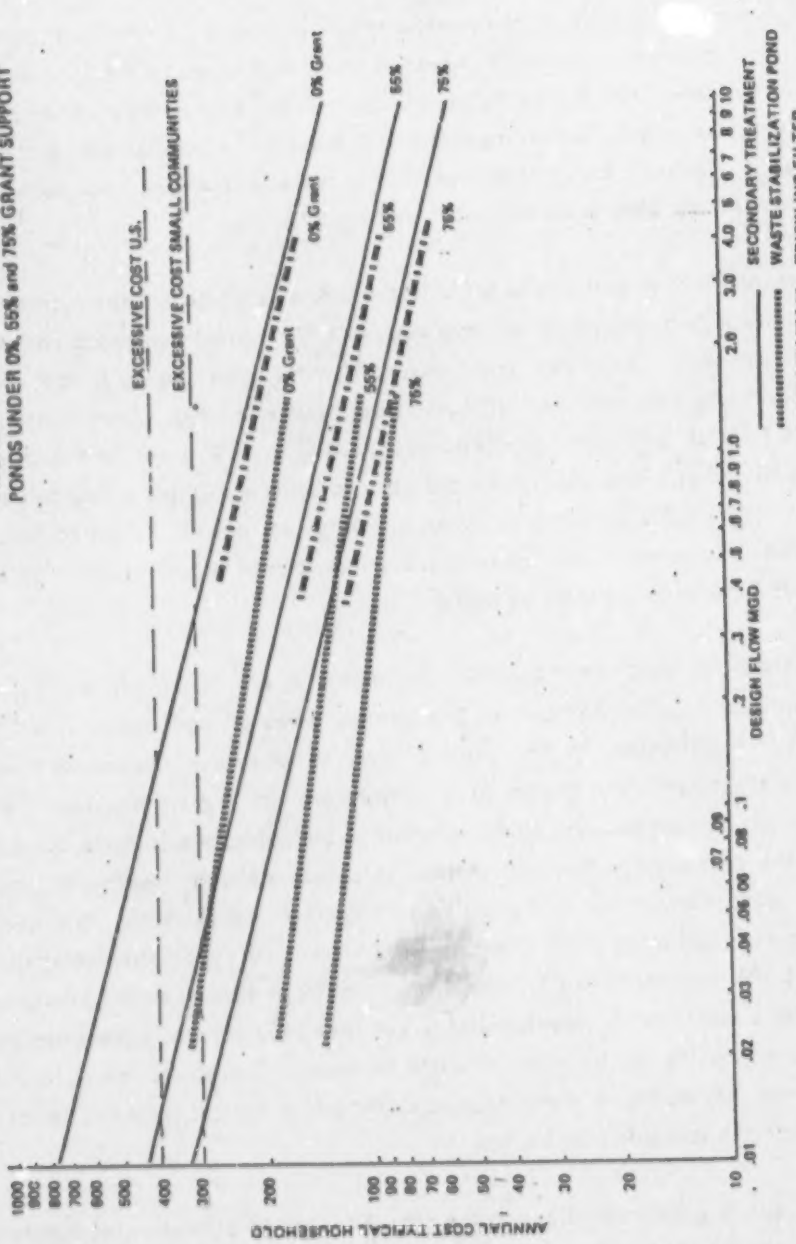
User costs for operation and maintenance for each case are then calculated based upon the same assumptions stated previously.

The total estimated annual cost for a typical residential customer, three person household, is derived by combining the user cost for debt retirement and the user cost for operation and maintenance. Figure 3 illustrates the estimated annual cost for a typical residential customer for secondary treatment, trickling filter and waste stabilization ponds for each of the three grant scenarios.

According to the 1980 Census, the median family income in the United States was $19,908 in 1979. According to the EPA Criteria (CG-82), annual user charges should not exceed 1.75% of the median household income when the median income exceeds $17,000, 1.5% when the median income is between $10,000 and $17,000 and 1% when the median income is under $10,000. Adjusting the 1979 U.S. median family income to household income, applying the appropriate percentage (1.75) and updating costs to 1982 via the consumers price index (CPI) yields an excessive user cost limit of $400. Any user cost having annual user charges exceeding $400 is considered to place an excessive financial burden on users of the system.

FIGURE 3

HOUSEHOLD COSTS AS A FUNCTION OF DESIGN FLOW FOR SECONDARY WASTEWATER TREATMENT, TRICKLING FILTER AND WASTE STABILIZATION PONDS UNDER 0%, 55% and 75% GRANT SUPPORT



In most small communities, the median family income is substantially lower than that found in larger metropolitan areas. A study performed by the U.S. Bureau of Census indicates that the median family income for an outmetropolitan nonfarm family of four was $17,646 compared to $20,502 for the total United States (U.S. Bureau of Census). Based upon the EPA criteria, any annual user cost in such areas exceeding $304 is considered to be excessive.

The excessive user cost limits for both the U.S. as a whole and the outmetropolitan nonfarm family of four are overlaid with the annual household cost curves developed under the three grant cases. Without grant support, the cost for secondary wastewater treatment would be excessive in small communities with a design flow of 0.35 mgd, population 2188. With a 55% grant, the size of the community that would experience the cost as being excessive would be reduced to .04 mgd or 250 persons, and with a 75% grant, essentially all communities required to construct and operate treatment plants would be able to do so without experiencing excessive costs.

The household cost curves shown in Figure 3 are based on the following assumptions: 1) The community is currently sewered and the sewers do not require rehabilitation, 2) The project involved complete replacement of any existing treatment facility and, 3) The entire project is grant eligible. The cost of new sewer construction, much of which is ineligible, would raise the curves, while the cost savings from being able to utilize existing treatment facilities would lower the curves. Ineligible project costs would raise the 75% and 55% grant curves and bring them closer to the no grant curve. Smaller communities, under 1,500, approximately 0.25 mgd, in many cases lack sewers and treatment facilities entirely, while communities larger than 1500 generally are sewered and may have existing facilities which could be reused. Therefore, the right side of the curves may be higher than would be expected for typical communities of that size while the left side may be low.

The impact of grant reductions on the annual household cost in a community with a population of 6250 is shown in Table 3. The cost savings resulting from the use of trickling filters or stabilization ponds in lieu of secondary treatment does not offset the impact of grant reduction on annual household costs in small communities.

Table 3
Impact of Grant Reduction on
Annual Household Cost in Small Community
Design Flow 1 mgd (Population 6250)

	Secondary	Trickling Filter	Waste Stabilization Pond
0% Grant	$247.04	$227.32	$173.00
55% Grant	143.23	128.77	111.25
75% Grant	105.12	93.30	88.91
55% Grant + FmHA Loan*	103.00	91.13	87.05
100% FmHA Loan*	158.22	143.09	120.10

* 5% FmHA Loan over 40 years.

The U.S. Department of Agriculture, Farmer's Home Administration, (FmHA) provides grant and loans to communities of 10,000 or less for the construction of wastewater treatment facilities. In order to qualify, the community must be unable to finance the project from its own resources or through commercial credit at reasonable rates. Communities with a median family income of less than $9,300, the poverty line, may qualify for a 5% loan amortized over 40 years. If the median family income is over $14,450, FmHA offers a 40-year loan based on a fixed interest rate (market rate) that is determined by the average bond buyer's index at the time the loan is made, currently 10.625%. If the median income falls between $9,300 and $14,450, the interest rate would be 5% plus half of the difference between 5% and the current market rate, currently about 7.8%. Grants are made only when necessary to reduce the average annual benefited user charges to a reasonable level. Competition for FmHA grants and loans is very heavy since the amount of funds is limited and FmHA qualifying projects also include rural water supply facilities. FmHA budgets average only about 17% of the EPA grants budget,

As shown in Table 3, the annual household costs for projects receiving a 55% grant and a low interest rate FmHA Loan, 5% over 40 years, are approximately the same as a 75% grant. For projects with substantial ineligible costs, the 55% grant plus loan combination would be even more favorable. With 100% FmHA

funding at 5% for 40 years, the user charges would be higher than for the 75% or 55% grant cases. However, the use of trickling filters or waste stabilization ponds in combination with the low interest rate loan would approximate a 55% grant situation with conventional secondary treatment. Again, for projects with substantial costs ineligible for grants, such as sewers after October 1 1984, the low interest rate loan could result in user costs more comparable to or lower than the project would have required if it had received a 75% grant.

Conclusions

The impact of grant reductions and changes in the classification of eligible project costs resulting from the Municipal Wastewater Treatment Grant Amendments of 1981 will significantly affect small communities. Due to the state priority systems and other factors, small communities have received a disproportionately small share of EPA grants in terms of numbers and dollars. There is a substantial backlog of needed projects in small communities which will now have to be funded with reduced or no grant support. Since annual household costs for wastewater treatment in smaller communities are higher than in larger ones, and the median household income is generally smaller, the percentage of families that would be burdened by excessive costs of wastewater treatment would be larger. This paper has evaluated the impact of grant reductions on small communities with existing wastewater collection systems. The impact on communities without existing infrastructure would be much more severe.

The use of waste stabilization ponds, trickling filters or other lower cost treatment facilities will reduce household costs and should be pursued if the community is located in an area where water quality would not be adversely affected. However, many smaller communities are located on water quality limited streams and will therefore be unable to take advantage of these treatment processes. In any case, the use of lower cost treatment does not offset reduced grant support.

Low interest rate loans, such as those available from the Farmer's Home Administration, will help offset the reduction in grant support and the elimination of eligible project categories facing small communities. However, that program has very limited funds and is therefore very selective. Many small communities with needed projects and high user costs are unable to take

advantage of the Farmer's Home Administration program because their median family incomes are too high. Consideration should be given to making a low interest loan program available to smaller communities on a wider scale to help them deal with their water pollution problems. This program could be patterned after the Farmer's Home Loan program but should shift emphasis from family income to the cost for user service and water quality need. However, such a loan program would probably not have sufficient funds to address the tremendous backlog of small community needs.

Some of the states may be able to provide grants, loans or other programs to help local communities finance the cost of clean water. However, we suspect that the majority of the states are suffering budget contraints themselves. Financial consultants and others are investigating such innovative financing alternatives as state banks or selling equity shares in the treatment plant, and these should all be explored.

There is no easy answer to the question of how to finance the backlog of wastewater treatment improvements in small communities. Perhaps the solution must be different for each community. Small communities with existing public utilities should take actions now to finance the operation of their wastewater treatment facilities on a self-sustaining basis rather than anticipate a federal program bailout. User charge systems and rate structures should provide sufficient revenue for operation, maintenance, replacement and capital improvements.

References:

1. EPA 1990 Preliminary Draft Strategy for Municipal Wastewater Treatment January 1981.

2. FRD-11 Construction Costs for Municipal Wastewater Treatment Plants: 1973-1978.

3. FRD-22 Operation and Maintenance Costs for Municipal Wastewater Facilities.

4. CG82 Construction Grants 1982 July, 1982.

5. U.S. Bureau of Census, Population Report Consumer Income Series P-60 No. 129 "Money Income of Families and Persons in the United States 1979".

6. Feliciano, D.V., "Fact Sheet for Wastewater Treatment" Journal WPCF, Volume 54, Number 10, October 1982, p. 1346-1348.

STATEMENT OF
EBEN CHESEBROUGH, PRESIDENT-ELECT
NORTH AMERICAN LAKE MANAGEMENT SOCIETY
BEFORE THE SENATE COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
ENVIRONMENTAL POLLUTION SUBCOMMITTEE
MARCH 8-10, 1983

Mr. Chairman and members of the subcommittee, I am pleased to be able to present testimony today on behalf of the North American Lake Management Society and its concern for our Nation's lakes. As we stated in our July 1982 testimony before this subcommittee, we believe that the Clean Water Act is basically sound and should be reauthorized with only minor adjustments to reflect new target dates and some special provisions to encourage more vigorous implementation of the Act. We are very much in support of Senate Bill 431 introduced by Mr. Chafee on February 3, 1983. I have attached a copy of our previous testimony including specific recommendations for reauthorization which we hope you can endorse. In my brief time before you I want to make some special points about lakes and their problems, and I want to make them in consideration of the difficult economic situation now facing our Nation.

A July 1981 report by the President's Council on Environmental Quality on environmental trends noted that 85 percent of the Nation's lakes have pollution problems related to accelerated eutrophication and almost half of those problems could not be remedied without nonpoint source controls. When you consider that the Clean Water Act was enacted in 1972, the above statistic indicates that pollution problems in our Nation's lakes are not being properly addressed and in fact are probably getting worse. We don't know how much worse because many states are ignoring lakes in their water quality monitoring programs.

The lakes and impoundments of this Nation are vital not only for their ecological function for the successful propagation of fish and wildlife but also for the economic basis they provide to many local, state, and national businesses. Unfortunately, the problems facing these resources are complex and generally large in scope which creates tremendous difficulties for communities and states to deal with them effectively. Also, the problems associated with lakes do not manifest themselves quickly nor are they immediately obvious, leading us to believe that we can delay improvement and protection measures. This notion is completely false, and if allowed to persist and be supported will put us in a position of jeopardizing the resource beyond treatability in the not too distant future. Lakes, streams, and coastal areas are receiving tremendous loads of silt and sediment greater than 4 billion tons annually, ineffectively treated wastewater and urban drainage, and pesticide and nutrient laden runoff from agricultural lands. It is no wonder that 85 percent of the Nation's lakes have pollution problems. Is it right for us to leave a legacy of polluted lakes and the economic burden of cleaning them up to our children?

The biggest problem with lakes stems from their ability to capture pollutants and accumulate them within their water column, bottom sediments, and aquatic life. Some pollution control programs are cleaning up the water flowing into lakes and impoundments but in-place pollutants from decades of abuse still plague our lakes. There is direct evidence that some lakes have been poisoned by toxic materials and organic chemicals. The problem ranges from PCBs in Pine Lake, Arkansas, Fort Loudoun Lake, Tennessee, and Woods Pond, Massachusetts to mercury in High Rock Lake, North Carolina, and arsenic in Muskego Lake, Wisconsin as well as chemical contamination in Alycon Lake in New Jersey and in the Great Lakes.

In 1972, the Clean Water Act established the Clean Lakes Program for good reason. To help states and local communities combat the serious pollution problems facing these important water resources. Unfortunately, it was not until 1980, with promulgation of program regulations, that the states and EPA came together in a trusting partnership to do something about the problem. The program was well thought out and operated on a minimal level of administrative support--probably the most efficiently run pollution control and clean up program at EPA. Eighty-seven percent of all appropriations went into actual pollution control and pollution clean up. Benefits derived from the program boasted greater than 8 to 1 ratio for Federal dollar expended.

In 1981 there were no appropriations sought by the Administration to continue the Clean Lakes Program. The staff at EPA headquarters was disbanded, and the states were left holding the bag. It was a serious breach of faith and understanding with the states and with local interests. This Society surveyed the states in 1982 and asked them if they could handle the lakes problems without EPA assistance and we got a resounding NO. We also determined that the states need to have the Section 314 program continued for a defined period (5 years) so that they can develop adequate legislative authority and technical expertise to implement their own programs. We believe that the $30 million level of authorization for section 314 in S. 431 is adequate, if similar levels of appropriations to EPA follow for program implementation.

Some members of Congress, the EPA Administration, and the Office of Management and Budget have frequently criticized the Clean Lakes Program because it could not command enough state and local support to justify a large enough budget and staff at EPA to make it worthwhile.

Now isn't that a hell of an argument. First of all, how are you going to get that enthusiasm from the public and states when the Administration and the Congress are continually giving them mixed messages. It costs the locals and states large sums of money to gear up for a major pollution control effort like the Clean Lakes Program. You cannot do that too many times and then find the well dry with no support before you lose trust and back away.

Secondly, what does the monetary size of a program have to do with its importance. The original authorization for section 314 was $300 million. To date, in a topsy turvey, unpredictable fashion approximately $100 million has been appropriated. Yet, state and local groups have been able to do with that meager amount what other pollution control planning and construction grants have not been able to do with billions of dollars. What this program has is public commitment (more than 50 percent of the funding in the program is from state and local resources), and local involvement. Because of the nature of lakes, their protection and improvement means jobs and income to millions of people.

In conjunction with section 314, the Congress needs to reauthorize some of the provisions of section 208 and other sections of the Act as outlined in our specific proposals to effectively combat nonpoint sources of pollution. One of the most significant attributes of the Clean Lakes Program was its ability to effectively tie together many pollution control programs provided by the Act. This coordination process is a requirement of the program as articulated in its well conceived regulations published at 40 CFR Part 35.1600. Implementation of nonpoint source controls identified by the section 208 program is a

cornerstone of the Clean Lakes Program success. We ask this committee to establish three new provisions to section 208. We encourage a new section of the Act, 208(k), to authorize up to $15 million annually for states to coordinate and undertake point/nonpoint source abatement tradeoffs. This would provide a powerful mechanism to effectively integrate clean lakes grants and construction grants with water quality planning under section 205(j), wasteload allocations, and standards reviews under section 303 and to focus attention on targeted areas with priority water quality problems. We suggest establishing a section 208(l) to authorize an amount equal to one percent of the construction grants program for priority watershed nonpoint source investigations, and establish 208(m) to authorize up to 10 percent of the construction grants authorization to correct specific nonpoint source problems. There would be a 50 percent local and state matching requirement for the grant to ensure local and state interest and involvement in cleaning up the nonpoint source problems. We believe the above approach is the most effective use of appropriations to combat pollution of the Nation's waters since it has been determined that nonpoint sources of pollutants may be contributing more than 50 percent of the remaining pollution load. An injustice is being done by focusing pollution control efforts only on point source control. It is this committee's job to address this problem.

The Society also supports a strong water quality standards program as we noted in our recent comments to EPA on their proposed revisions to the water quality standards regulation. We sent a copy of our very serious concerns about the proposed revisions to this committee on February 8. Our Nation's lakes will suffer even further if the

existing regulation is altered. Citizens concerned about clean water in America appreciate the comments made by Mr. Chafee and Mr. Randolf as they introduced S. 431. The proposed amendments to section 303 in S. 431 are important steps for protecting water quality. Unfortunately for our Nation's lakes, many states do not have sufficient criteria and standards to protect lakes from pollution. Criteria for rivers and streams just do not work. NALMS asks Congress to amend section 304(a)(2) to expressly require EPA to develop lake and impoundment water quality criteria and to amend section 303 to require States to incorporate these criteria in their water quality standards.

The Society also asks this committee to consider providing direction for protecting ground water quality in the Clean Water Act. This would be accomplished by requiring states to adopt ground water quality standards and by requiring EPA in section 304 to issue criteria for protecting not only the drinking quality of ground water but also the quality of subsurface water that flows into all streams, rivers, and lakes. Ground water and surface water quality need to be managed together. Unfortunately this is not the case in many states.

The Society pledges its support both to the Congress and EPA in further implementing the Clean Lakes Program as envisioned by its operating regulations and legislative authority and in establishing a nonpoint source control program. We encourage EPA to reinstate the Clean Lakes Program and apply necessary personnel at the 1980 level (approximately 15 people) so that the vital lake resources are assured their integrity for future generations. We encourage Congress to establish a nonpoint source program targeted to waters with priority problems. Specific proposals are included in my detailed statement. Please also consider the development of water quality criteria to protect lakes and impoundments and the incorporation of these criteria in state standards. Mandatory state ground water quality standards should also be adopted. With that, I conclude my statement and I thank the committee for its time.

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STATEMENT BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

BY THE

WATER AND WASTEWATER EQUIPMENT

MANUFACTURERS ASSOCIATION, INC.

APRIL 11, 1983

Mr. Chairman and members of this subcommittee, the Water and Wastewater Equipment Manufacturers Association, Inc. (hereinafter, WWEMA) is very pleased to have the opportunity to offer its view about the state of America's clean water program. We recognize and appreciate the role of your subcommittee and its excellent staff in shaping the important water pollution control policies of this country.

WWEMA is an association of over 130 corporations that develop technology, manufacture and supply equipment, materials and services in the water and wastewater industry. At the outset, we wish to emphasize that our organization carries a very positive attitude about the accomplishments of the clean water program and in contrast to what the subcommittee may have heard from other sources, we remain optimistic about the opportunities that lie ahead. This is not to say that we are unaware of the complexities and ambiguities of problems that have plagued the national effort to improve water quality. WWEMA is pleased, therefore, to be able to share the following views and comments with you.

In 1982 WWEMA submitted its recommendation concerning amendments to the Clean Water Act. We are providing for the record our full statement on our position on select sections of the Clean Water Act (Attachment A). However, at this time WWEMA would like to voice its very strong opposition to EPA's Proposed Water Quality Standards.

First and foremost is the fact that the pre-1972 water quality approach was ineffective at reducing water pollution. Congress recognized this frailty and in its wisdom changed from "water quality" to "limits on pollutant" parameters, subsequently embodied in the Clean Water Act of 1972. Decidedly, the federal government superseded the State's role in setting, implementing and enforcing water pollution controls in order to provide nationwide uniformity. Do we wish to return to "pollution shopping" where industry can measure the economic feasibility of plant location predicated on state standards?

The underlying principle of a water quality-based program is that the environment exists to receive waste, rather than the more reasonable approach of how to avoid release of waste. More importantly, the proposed changes are unnecessary. The current regulations governing state water quality standards strike a reasonable balance between protection and flexibility - ensuring good water, while allowing states the freedom to make exceptions in those rare cases where the attainment of environmental goals would cause substantial economic hardship.

The proposed water quality standards would undermine this nation's water pollution control efforts by allowing and encouraging states to weaken their water quality standards and would make economically hard-pressed states vulnerable to pressures from polluting industries. Existing regulations have the flexibility necessary to make any exceptions needed in water quality standards without exposing the states to pressure from industry. In fact, since 1974 fewer than a dozen changes in state water quality standards were disapproved by EPA.

WWEMA believes that the proposed changes should be deferred for several years. Priority should be shifted to organizing a nationwide water quality monitoring program that will provide an accurate account of water quality levels for all bodies of water. Then, and only then, can informed judgements be made possible.

Finally, since states can only downgrade designated uses if they have not yet been attained, these proposals reward states and firms that have done a poor job of cleaning their waters by allowing and encouraging them to easily downgrade designated uses. Downgrading designated uses of water bodies will certainly increase the cost to process drinking water from the same source. States that have done a good job of setting and meeting water quality goals will not be able to downgrade.

According to recent polls, the American people are firmly in favor of a strong and continued water pollution control effort. If such drastic changes in the clean water program are to be made, we feel that the EPA should let them come from the Congress.

Thank you for allowing us to comment on this important subject. We feel confident that your committee will again provide sufficient oversight to make only the necessary adjustments and corrections to the Act maintaining consistent scope and continued momentum toward achieving its environmental goals.

* * * *

[ATTACHMENT "A"]

STATEMENT BEFORE THE

SENATE SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

BY THE

WATER AND WASTEWATER EQUIPMENT

MANUFACTURERS ASSOCIATION, INC.

AUGUST 2, 1982

Introduction

Mr. Chairman and members of this subcommittee, the Water and Wastewater Equipment Manufacturers Association, Inc. (hereinafter, WWEMA) is very pleased to have the opportunity to offer its views about the state of America's clean water program. We recognize and appreciate the role of your subcommittee and its excellent staff in shaping the important water pollution control policies of this country.

WWEMA is an association of over 150 corporations that develop technology, manufacture and supply equipment, materials and services in the water and wastewater industry. Our plants in nearly every state of the union employ over 25,000 persons who, for the most part, have made their career to solve wastewater treatment problems. The accumulative revenues of the member corporations account for about 20% of expenditures under the construction grants program and an equal amount for industrial water pollution control.

At the outset of this statement, we wish to emphasize that our organization carries a very positive attitude about the accomplishments of the clean water program and in contrast to what the subcommittee may have heard from other sources, we remain optimistic about the opportunities that lie ahead. Our optimism is based on the fact that this period of oversight and review provides us, as manufacturers and the nation at large, of the opportunity to make the necessary adjustments and corrections in the clean water program so that we can finish the enormous task of assuring our population a continuing source of clean water. This is not to say that we are unaware of the complexities and ambiguities of problems that have plagued the national effort to improve water quality. WWEMA is pleased, therefore, to be able to share the following views and comments with you.

Legislative Goals

Mr. Chairman, your committee played a critical role in the successful passage of P.L. 97-117 and WWEMA fully appreciates both the effort and dedication of your committee. The signing of the construction grants reform bill marked a rededication of federal funding under Title II more toward environmental goals than a public works oriented program which tends to promote construction without regard to environmental results. The Clean Water Act in this reauthorization, however, does not require modifications anywhere near the magnitude of the construction grants amendments of 1981. Most of the problems still associated with today's clean water program

result from the way in which the act has been implemented, not from the act itself. WWEMA believes the Clean Water Act including its overall goal to restore and maintain...the integrity of the nation's waters is fundamentally sound and does not require structural changes. It has been our experience in the past that any modification has resulted in a slowdown or backsliding of the entire program. The clean water program cannot afford further slowdowns and extensions of time if the industry is to maintain the quality, quantity, and technical expertise that presently exist.

However, if the Congress feels compelled to make minor adjustments to the act, then WWEMA suggests no change to the technology-based effluent standards and continued tight control of discharges containing toxic pollutants from either municipal/industrial sources. Technology should remain paramount to any water quality based control approach that might be advocated by some during this reauthorization. We further urge the Congress to view the tight control of toxic pollutants as an utmost urgent environmental goal. While we support technology-based effluent standards, we also recognize that legislation cannot be tailored to a narrow base to cover all site-specific environmental conditions. Therefore, any variations requested of this type are a regulatory matter requiring no legislative input.

EPA Recommendations

In May 1982, the EPA sent to Congress a series of 15 recommendations to amend the Clean Water Act. We are pleased to know that the EPA amendments leave untouched sections that mandate water quality sufficient to protect fish, wildlife and recreation (fishable/swimmable and BAT effluent standards) and maintains the requirement of general pretreatment standards. We urge the Congress to require those who seek major changes to the act to carry a heavy burden of proof justifying any such changes.

Extension of BAT Compliance Deadlines

The Clean Water Act requires industries to reduce their discharge of pollutants to water bodies by installing progressively more controls complying with the more stringent BAT requirements. In our opinion, the current BAT compliance date of July 1, 1984 cannot be met since the EPA is yet to issue BAT effluent limitation standards for direct discharges from 34 major industries involving 129 chemical or other toxic substances which require regulation under the act. This same tight compliance scheduling is present in the municipal construction grants program. However, in the 1981 Clean Water Act Amendments, the POTW secondary treatment compliance schedule was extended to 1988 for those POTW's experiencing reduction in financial assistance under the

act or where changed conditions go beyond the control of the owner affecting the current compliance date. WWEMA agrees that the current BAT compliance schedule cannot provide for orderly industrial implementation by the 1984 deadline. We believe that an extension is warranted to a date certain between 1986-1988 as set by Congress.

It has been proposed to extend the deadline for issuance of regulations covering BAT effluent limitation guidelines to July 1984 including the national categorical pretreatment effluent limitation guidelines. WWEMA believes that the July 1, 1983 deadline should be maintained for major industrial categories such as organic chemical, pesticides, petroleum refining, etc. Maintaining the current compliance date for these industries would create an optimum impact on pollution and paralleling the water quality impact priority policy established by Congress in P.L. 97-117 emphasizing projects that address water quality management considerations to achieve optimum water quality consistent with public health and water quality goals. We suggest the EPA be allowed to segment the issuance of these regulations with the major categories by July 1, 1983 and the balance by July 1, 1984.

Pretreatment

The pretreatment program has been called a regulatory thicket with heavy federal involvement which tends to induce a level of absolutist values with inevitable tendency toward excessive rigidity. We believe recent EPA recommendations to amend the Clean Water Act adjusts the pretreatment focus to some extent allowing flexibility of control from technology-based standards. This includes the allowance of environmental exceptions from both the general and categorical requirements of a POTW that certifies it has an adequate program to insure that its discharge does not interfere with the attainment and maintenance of the designated stream uses and their NPDES permit. Therefore, flexibility at the local level is necessary. WWEMA supports these environmental exceptions for a certified POTW facility as it removes the EPA from the interface of state/local government and industry.

Other Issues

NPDES Permit Life: The above EPA recommendations provide for a ten year NPDES permit life compared to the present five year. WWEMA believes that granting of said extension should be based on a demonstrated need by the permit holder. While we agree the extension of the permit term will reduce the annual permitting workload and provide more certainty for a long period making

investments in pollution control more economical, the granting of such extension should not be a common or routine practice without a demonstration of need. A ten year permit covers a long time which, as we have observed from the past, can include a multitude of national trend changes in financial, social and environmental priorities.

Federal Facility Exemptions: The EPA recommends an amendment granting a federal facility exemption from the requirements of Section 306 and 307 of the act. This expands the scope of the President's authority to exempt all federal facilities and property from the requirements of the act if said exemption would be in the "paramount interest of the United States." WWEMA believes this across-the-board exemption is an inequitable punishment for those municipalities and industries who must comply with the EPA regulations. An exemption vacating federal pollution control efforts on a given stream could negate any upstream or downstream treatment efforts of others and waste the resources of those required to continue compliance.

Civil Penalties: The proposed amendment to Section 309 provides the administrator with authority to administratively assess civil penalties up to $10,000 per day. WWEMA supports this amendment provided civil penalties are enforced equitably between municipal as well as industrial violators of the Clean Water Act.

Conclusion

All in all, WWEMA remains optimistic about the future of this national enterprise to protect our water resources. We remain confident that the people of this country want clean water and that with adjustments to the way the business is done, clean water goals can be achieved at a reasonable cost and in an attractive business environment. It is not an impossible dream. If the will is there, the technology is here. We feel confident that your committee will again provide sufficient oversight to make only the necessary adjustments and corrections to the act maintaining consistent scope and continued momentum toward achieving its environmental goals.

EXTENDING AND AMENDING THE CLEAN WATER ACT

TUESDAY, JUNE 14, 1983

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION,
Washington, D.C.

The subcommittee met at 3:30 p.m., in room SD-406, Dirksen Senate Office Building, Hon. John H. Chafee (chairman of the subcommittee) presiding.

Present: Senators Stafford, Chafee, Simpson, Durenberger, Randolph, and Moynihan.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. This is a meeting of the Environmental Pollution Subcommittee of the Environment and Public Works Committee. We are pleased to welcome to the subcommittee today the Administrator of EPA, Mr. William Ruckelshaus. I believe this is his first appearance before the Congress since his confirmation as Administrator and we look forward to an excellent working relationship with you, Mr. Ruckelshaus and the staff of your agency.

I expect that that relationship will be a fruitful one for both sides and for the Nation.

Today we are completing a series of hearings on amendments to the Clean Water Act. As I have stated many times before it is my belief that the Clean Water Act is sound as written and it should not be tampered with simply for the sake of change. We do have an opportunity, however, to put in place the necessary tools for achieving cleanup of our most polluted waters.

The goal of the Clean Water Act is to restore and maintain the physical, chemical, and biological integrity of our Nation's waters. What we do in this subcommittee with nonpoint sources, water quality standards, and the abatement of toxic pollution will determine when and even if this goal will be achieved. We must focus our efforts on those waters which we will not meet the goal of the act without additional action and we must devise a strategy for taking such action.

It is not enough to say progress has been made and indeed progress has been made and significantly so. We must push forward and address our most significant problem, the persistent toxic pollution. A failure to do so would invite endless delays just as we are beginning to get a handle on where our major pollution problems

are occurring. This is a challenge and one that I am very pleased that we will have the able assistance of this outstanding Administrator, Mr. William Ruckelshaus, to help us with.

I wish to reiterate something that I believe is important. Various Government agencies have competing interests that make joint policy development difficult. An example comes to mind as regards the 404 section of the Clean Water Act. There we have the Corps of Engineers attempts on the one hand to rewrite the regulations for that section of the Clean Water Act. That agency's mission is to develop our Nation's resources. EPA's mission is to maintain and nourish our Nation's resources. It seems to me that under Mr. Ruckelshaus' leadership EPA must be vigilant in maintaining its independence and keep focused on its only mission, protecting the environment.

So therefore, Mr. Ruckelshaus, your comments on such things as the regulations in section 404 are important to us. I am confident that you will maintain the independence of your agency and of this committee and we respect you for what you have done in the past and look forward to that continued work in the future. You can rest assured that this committee is here to help you, that this is an environment committee and we are interested in the environment and we wish to be helpful to you on all scores.

Senator Randolph, do you have a statement?

OPENING STATEMENT OF HON. JENNINGS RANDOLPH, U.S. SENATOR FROM THE STATE OF WEST VIRGINIA

Senator RANDOLPH. I do, Mr. Chairman.

We are delighted, and we use the word advisedly, to have Bill Ruckelshaus here again today. Bill, you have been before our committee many, many times not just this year but in years past. Generally, I think, you have given to us well reasoned discussion and decision processes that you have had as a member of the administration. I think that we ought to recognize that when we talk about the Clean Water Act it is one of the most vital pieces of legislation that we have considered from time to time on Capitol Hill, especially in this committee.

This hearing, as we know, is the last of a series which began in April of this year. We have heard the representatives of practically all of the parties that have an interest and a concern in this legislation. Testimony has been received on all aspects of the pending bill, including the extension of the compliance dates and perhaps you will discuss it; Federal common law and perhaps you will mention it; water quality standards if you feel you wish to make a statement on that specificly; and the so-called nonpoint sources and pretreatment.

It only is now remaining for the subcommittee to hear the voice of the Environmental Protection Agency and that, of course, is your voice.

There are several issues that are of particular importance to different members but I have, as do others, matters that concern me. I have stated that I wholeheartedly support the extension of industrial compliance deadlines under the Clean Water Act. I believe the majority of the members of this committee hold to that con-

cept. We may differ however and that is understandable on the precise terms of what we call the extension. While I am not absolutely bound to the language in my bill, Senate 432, it provides a basis for developing an extension that will be sufficient for industry, particularly the steel industry which is suffering today.

There is the problem of design and construction of those facilities that are necessary for complaince with the best available technology requirements that we have at the present time.

When we talk about water quality standards, I am on record as being in opposition to the revisions which have been proposed by the Environmental Protection Agency. This has been discussed. It was discussed in your confirmation hearing, Mr. Ruckelshaus. I believe those proposed revisions to be contrary to the objectives and the goals of the act itself. In March I joined with other members of the committee in requesting Dr. John Hernandez, then the Acting Administrator of the Agency, to withdraw the proposed regulations. Dr. Hernandez is no longer with the agency; is that right?

Mr. RUCKELSHAUS. That is correct.

Senator RANDOLPH. On that you and perhaps others can speak. I look forward to hearing from Mr. Ruckelshaus. We will discuss these views and other issues on clean water amendments that are before us.

In closing, I am, as I have said before, one who believes in Mr. Ruckelshaus. That is proven by the actions that I have taken in the past and continue to state today. When we go into the scheduled markup sessions on this legislation we will have to do it soon. It is my hope, Mr. Chairman, that the full committee will be able to report a bill before this month is over.

I will do what I can to join with you, Mr. Chairman and others, to expedite such action. I thank you.

Senator CHAFEE. Thank you very much, Senator Randolph, and the subcommittee is going to mark up on the 16th and the 22d. It is my understanding that the chairman has scheduled the 29th and 30th for the full committee. Chairman Stafford, we welcome you here and appreciate your following this subcommittee.

Do you have a statement?

Senator STAFFORD. Thank you very much.

This will be an assurance that we do have the time for mark up in full committee before the July recess begins and it would be my intention, if the committee agrees, that we go ahead and do that. I do have an opening statement.

OPENING STATEMENT OF HON. ROBERT T. STAFFORD, U.S. SENATOR FROM THE STATE OF VERMONT

Senator STAFFORD. Thank you Senator Chafee. I do want to take a moment to welcome Mr. Ruckelshaus.

Bill, this is your first appearance before the Committee on Environment and Public Works to discuss legislative issues. I look forward to hearing what you have to say about the Clean Water Act. It is one of the most important statutes which EPA is charged with implementing.

Any number of recent public opinion polls could be cited to demonstrate the public's unflaging commitment to clean water. I think

you will see, as the reauthorization of the Clean Water Act moves forward, that this committee's commitment to clean water is still strong as well.

The Clean Water Act is fundamentally sound. We do not intend to change it in significant ways unless it is to close inadvertent loopholes or to make it more workable in order to accelerate the Nation's progress toward our clean water goals.

I am sure that you know that I, as well as other members of this committee, are concerned about certain aspects of Clean Water Act implementation over the past few years. I am sure you have seen a recent letter signed by the leadership of the full committee and this subcommittee objecting strongly to proposed regulations that would invite downgrading on water quality standards and degradation of our clean water resources. In the course of this hearing, and in later conversations that we expect to have with you and your staff, we will discuss other concerns that we have. To briefly mention but one, I am disturbed at the apparent lack of progress on development of regulations governing use and disposal of sewage sludge. The Environmental Protection Agency was directed in 1977 to develop these regulations within 1 year. But, as nearly as I can determine, the Agency is still some distance away from their publication. I hope you will look into this matter.

I do not wish to take any more time now, because I am eager to hear your comments on the bills before the subcommittee. I look forward to working with you and your staff on issues related to these amendments and other aspects of the agency's implementation of the clean water program.

Senator CHAFEE. Senator Durenberger?

Senator DURENBERGER. No statement.

Senator CHAFEE. Mr. Ruckelshaus, you have certainly a lot of supporters in this committee. I think it is hard to go anywhere but up. I will kind of work my way out of that statement.

Senator STAFFORD. We could say that Mr. Ruckelshaus has got to live up to his advance billing now.

Senator CHAFEE. I am confident he will.

Senator RANDOLPH. Mr. Chairman, you speak about working your way up. Usually Senators are involved in working their way out of the problem.

Senator CHAFEE. Well, Mr. Ruckelshaus?

Why don't you proceed. We look forward to what you have to say. Obviously we will have questions.

STATEMENT OF HON. WILLIAM D. RUCKELSHAUS, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY REBECCA HANMER, ACTING ASSISTANT ADMINISTRATOR FOR WATER

Mr. RUCKELSHAUS. Mr. Chairman, and members of the committee, this is my first formal testimony before a congressional committee since coming back to EPA. I think it is fitting that the subject of this testimony would be the Clean Water Act. Since receiving your invitation to testify I have been through several briefing sessions with members of the staff of the Office of Water at EPA. I have with me here this afternoon Rebecca Hanmer, Acting Assist-

ant Administrator for Water at EPA. I have been impressed not only with her knowledge, background, wisdom in this area and vast experience in attempting to administer this law, but also impressed with the competence, the open mindedness of the staff, their willingness as I have told them a little while ago, to bring me from a state of near ignorance to dangerous knowledge about the problems associated with the Clean Water Act.

I thought I knew most of the problems surrounding the Clean Water Act. In fact I thought most of them had been solved when I left 10 years ago. I find new ones have cropped up, new complexities exist and that this committee is engaged in worthy work in attempting to sort through those problems and give the Environmental Protection Agency and the country a worthwhile path toward continued progress.

As you know, Mr. Chairman, I am coming into this process rather late in the game. The markup as you have suggested for the subcommittee is going to start yet this week. I was not involved in the administration's deliberations over their proposal. As I have stated in my statement which I will summarize, I won't read the whole statement, I have attached the administration's legislative recommendations to my testimony.

Those recommendations along with the bills that have been introduced by the members of the subcommittee, S. 431 and S. 432, raise very important issues that I think need to be addressed in this reauthorization process. The fact that in my summary I do not mention every one of these issues does not mean that I don't think they need to be addressed or they are not important. I am just going to try to focus my remarks on what I think are the most important and the knottiest issues that the committee has to deal with.

I agree with you, Mr. Chairman, that the basic strategy of the Clean Water Act, namely the technology standards plus water quality standards approach, has been very effective in achieving remarkable progress over the last decade. The statistics quoted on page 3 of my statement indicate that in 1980, four of the major pollutants that we were focusing our attention on as this law was originally passed, namely BOD, suspended solids, oil and grease, and dissolved solids, have all been reduced significantly. That has all been a result of the implementation of the Clean Water Act as it was amended in 1972 and then again in 1977.

Again, on the municipal side, while the progress has not been quite as swift or as dramatic as on the industrial side, the majority of the POTWS have now achieved secondary treatment and most others are scheduled to do so. We have 35 States that are now administering the national permit program and the Agency itself after some initial delays is making progress in developing and issuing the BAT, best available treatment technology, effluent limitation guidelines which of course are the basis of the toxic control strategy envisioned by Congress.

It is my intention, Mr. Chairman, and members of the committee, both in this statement and in the spirit of my confirmation hearings to attempt to open a useful dialog with this committee, to be as helpful as I can possibly be in helping the committee achieve our joint goals of water quality improvement, to see if we can't

draft amendments that are in the public interest, that we don't lose the momentum of our water pollution program but that we at the same time try to make corrections that will provide a more efficient and effective way of achieving our goals.

The first issue is the effluent guidelines, both on the compliance question which you raised, Senator Randolph, and likewise the pretreatment requirements which many of you mentioned.

I think those two issues that are present before the committee have as much to do with our technology-based requirements as any. The extension of the present July 1, 1984 industrial compliance deadline is, of course, an urgent issue that has been addressed by all three Clean Water Act proposals present before the committee.

In setting the industrial compliance dates in 1977 amendments of the Clean Water Act, Congress recognized that industry needs a reasonable amount of time after promulgation of the guidelines to construct the necessary treatment facilities and come in to compliance. The Congress required Agency promulgation of guidelines by 1980 and recognized the time required for permit issuance, which is about 1 year from the adoption of the guidelines I am informed by staff.

It required industrial compliance by July 1, 1984. The Agency's promulgation of the guidelines was delayed and is not yet complete. As a result, the industrial compliance period has been drastically reduced. The administration's proposal under section 2 would extend the current deadline for industrial compliance with BAT and BCT effluent guidelines from July 1, 1984 to no later than July 1, 1988. Where industrial permit limitations are based on the best professional judgment, the compliance deadline would be extended until no later than 3 years after the permit issuance date. That sets an outer limit for compliance.

In many cases, compliance can and will be required earlier where possible. The proposal contained in S. 431 provides the BAT and BCT shall be met by July 1 of 1987, Senate bill 432 adopts a somewhat different approach on the extension issue. For all of these limitations, compliance deadlines would be extended to 42 months from the Clean Water Act reauthorization or 36 months after either promulgation of an effluent limitation or issuance of a permit.

In resolving the questions of extension, Mr. Chairman, I think there are three objectives that any solution must address.

First, any extension must recognize the time needed to promulgate effluent limitations and issue permits.

Second, the extension must contain a final compliance date which applies to all BAT-BCT related permits.

Third, the language should provide clearly that if compliance can be achieved before the final date, then it must be. There is no question that some form of deadline extension is needed, Mr. Chairman, and I would like to offer whatever assistance the committee may require in determining the appropriate way to address the problem.

Pretreatment, I really think, is the knottiest issue before this committee. It is a subject addressed by both S. 431 and the administration's proposal.

The fundamental objectives of the pretreatment program as they are currently written in the act are to protect water quality, to protect the municipal sludge from contamination by industrial toxic wastes, and to protect the operation of the POTW itself.

I think a fourth goal that we are attempting to achieve through the amendments that have been suggested is to avoid imposing requirements on indirect discharges where they would not have any effect on the first three goals.

The need to achieve the first three goals, I think, is widely recognized and unquestioned. However, a major concern addressed by both bills is that there may be cases in which full implementation of pretreatment categorical standards may not be necessary to achieve the goals of the program.

The difficult question that all of us are grappling with is how to address those cases without opening a Pandora's box of technical difficulties, serious resource demands, administrative problems, and scientific uncertainties without delaying the program as it applies to those situations that need these controls.

I think the crux of the problem, Mr. Chairman, is the setting of the water quality standards for toxics, the ability to achieve the first goal that I outlined above; namely, to protect water quality.

The Agency informs me that as a result of the resources placed against the establishment of effluent guidelines for toxics, we are somewhat behind on achieving these water quality standards for toxic substances and this is making it more difficult to achieve a reasonable pretreatment waiver system that can be implemented within a reasonable period of time.

I don't think there are any easy answers to this problem that has been addressed by the pretreatment waiver provisions that we both introduced.

Mr. Chairman, with your permission, I want to work with the committee. I am not prepared at this point to give up on it. I think it is important. I am convinced that with the current system and its use of categorical standards, we will both over and under control toxic substances. I don't think there is any way around that. We, then, have the next level of problem; namely, what do we do about water quality after BAT, where the designated uses continue not to be met as a result of toxic problems remaining after we implement technology-based standards.

So we are going to have to face that problem anyway at some point, even after we impose these categorical limitations.

As to the second point in my statement of water quality standards, again, which Senator Randolph mentioned, under the Clean Water Act, technology-based effluent guidelines will be supplemented by State-developed water quality standards. Senate bill 431 contains a provision that addresses this area by requiring the maintenance of designated uses as they existed January 1, 1983.

If the purpose behind this provision is to ensure continued progress toward the Clean Water Act's 1983 goal of fishable, swimable waters, I certainly support that intent. However, as I have stated many times before this committee and, again, in my confirmation hearings, if the effect of that is to limit the Agency's flexibility in achieving the goals, then, I have some serious reservations.

The water quality standards program has been an integral part of the Clean Water Act since 1972. The staff informs me, as I mentioned a moment ago on the pretreatment standards, that because of the emphasis of the resources concentrated on developing and implementing technology-based guidelines and permits, ambient controls have not been the driving force and consequently water quality standards have not been given as much attention as it might.

In particular, States received only minimal support in the scientific and technological direction they really needed to transfer use designations and criteria into effective point and nonpoint source controls.

With the establishment of technology-based limitations underway, the need for an effective water quality program to address those pollution problems continuing beyond technology-based treatment remains.

I read this committee's letter of March 14 in which many of you had expressed great concern about the water quality standards regulations which the Agency proposed in October to revise the existing water quality standards.

As I understand it, one of the principal purposes of this proposal was to make the standards-setting process a better and more effective decisionmaking tool. Regardless of the Agency's intent, the proposed revisions apparently were viewed by the public as a retreat from the goals and objectives of the act.

The Agency received over 1,400 comments and several thousand pages on that proposal. The bulk of these comments expressed concern not only with the objective of providing more technical assistance and direction to the States but with the specific provisions relating to the use of cost-benefit analysis and the proposed antidegredation policy.

Those comments are being carefully reviewed. I expect them to play a significant part in the direction of the final regulations.

Senator Randolph, you have already mentioned your request that we withdraw this proposal. In my review of these standards and of the proposal itself, if I come to the conclusion that it should be withdrawn, I will withdraw it.

I can pledge to you that whatever standard, whatever changes we ultimately come out with, I will consult with the committee and its staff very carefully and go over with you what those proposed changes are, see if they are close enough to the objectives of the existing regulations so that they can be finally published.

If they cannot, maybe the only alternative is to withdraw them. But I certainly would be glad to discuss them even further with you here this afternoon and beyond that go over with you very carefully what we are doing and what changes we think are warranted on the basis of the comments made.

Senator RANDOLPH. I would say, Mr. Ruckleshaus, that certainly is a statement that I can understand. You were saying that you are studying these proposals, that you are ready to counsel, and that your decision will be made after what we would call consideration by you and your staff of the matters that are under consideration.

I could ask no more, sir.

Mr. RUCKELSHAUS. Senator, I appreciate that comment. I think the concern I have and I think some members of the staff share, is that we have been through the process now of publishing these proposals and receiving comments on them.

One of the proposals having to do with the water quality standards themselves has to be published. It was the proposal that aroused a good deal of concern among a lot of people, including yourself, because the administrative procedure that the Agency used earlier to promulgate downgrading provisions as part of the water quality standards process, was not proper and, therefore, was invalid. We have to publish some approach to that problem. And, therefore, I have to go forward.

It is not necessary on the antidegradation provisions where a lot of controversy also arose. We do not need to change those under any court proceeding. So we are a little concerned about withdrawing them and starting the whole process all over again. It could be that we could go forward with the current proposal and make changes that would meet most of the concerns that have been expressed, satisfy this committee and not have to go through the procedure again.

On the third point——

Senator RANDOLPH. Mr. Chairman, again I want to say we have the feeling, and this is not a pleasantry, that you and your staff will do what we expect to be done and that is careful consideration be given to the proposals and hopefully our viewpoint, of course, might be sustained. I am sure your decision will be, in what you believe, is in the public interest.

Mr. RUCKELSHAUS. Thank you, Senator.

As to enforcement, we have several recommendations on enforcement. I don't want to go into those in any detail. They are spelled out in our statement. One of the proposals is to permit the Administrator to assess administrative civil penalties of up to $10,000 a day not to exceed $75,000 with notice opportunity for a hearing and right of appeals to district court.

This would provide an additional enforcement tool to achieve compliance where given the nature of the violation the use of the court system itself did not seem warranted.

The court system, of course, would still be available to the agency in the event that the violation was more serious and it seemed appropriate to go to court.

Under Senate bill 431 you have asked for an increase in the daily maximum penalty from $10,000 to $25,000, consistent with the Clean Air Act.

I certainly have no trouble with that.

We have also asked for additional criminal enforcement powers where there are knowing violations of the act in which persons who knowingly introduce into a sewer system or a public owned treatment work a pollutant or hazardous substance which causes or can reasonably be anticipated to cause personal injury or property damage.

All three of those additional enforcement powers, Mr. Chairman, we think are warranted, and are consistent with provisions in existing laws on the environment or on proposals that we have made

to change existing laws. We think it will give the Agency a greater range of enforcement mechanisms to achieve compliance.

Under the permit section, we have asked for the ability to extend the permit term from 5 to 10 years. That is primarily a resource-related request. Again, the permit can be written for any period less than the maximum term that the Agency deems necessary under the circumstances. But in some instances where the permits are relatively simple and the problems themselves can be handled by existing treatment systems, dealing with them every 5 years is more resource intensive and does not appear to be necessary in all cases.

Senator CHAFEE. Mr. Administrator, there is a vote on now.

The others have gone over. I think I will go over and come right back because I don't want to miss it.

Our questions obviously will evolve around what you testify to. So we will just have a short break and resume after the vote.

[Brief recess.]

Senator CHAFEE. Ladies and gentlemen, we are pleased to have your attention.

Mr. Administrator, if you want to continue on your statement that would be fine.

Mr. RUCKELSHAUS. I will try to finish up here, Mr. Chairman. There were points that I wanted to make under page 11, section 4, on permits. One was the one I have already mentioned, which was really a resource-related request to extend the permit term in certain situations up to 10 years. The second was to let some States take over a portion of the permit program. We have found a reluctance on the part of a few States to accept the whole program and I guess it is our feeling that if we had some more flexibility to let them take over a portion of that program that they would eventually be willing to accept the whole program consistent with the objective of the act.

The final issue I want to address is nonpoint source pollution control which is clearly an important issue to us and to the committee. The subcommittee itself is considering nonpoint source water pollution issues as part of the Clean Water Act reauthorization process. We support your interest and agree that nonpoint source problems must be addressed to the extent feasible.

When EPA first attempted to quantify nonpoint source problems in the early 1970's, we noted that there were billions of tons per year of soil erosion in the United States and a very high volume of urban stormwater runoff. As our understanding has developed, we have attempted to go beyond the focus on total loads and concentrate instead on those specific cases where nonpoint sources must be addressed to both meet water quality goals and realize the full benefits of point source control investments.

With the establishment of technology based standards well underway, pollution from nonpoint sources represents a continuing water pollution control problem in some areas. The 1982 State water quality assessments report prepared under section 305(b) of the act describes the nature of this problem: One, in one-fifth of the States, nonpoint sources are now the most important cause of water degradation in those waters not meeting uses; two, agricultural nonpoint sources are the major nutrient sources in lakes with

eutrophication problems; and 3 of the 20 States which specifically quantified their progress toward the 1983 Clean Water Act goals, 15 (75 percent) list nonpoint sources as significant sources in their remaining problem waters.

Over the last decade, our understanding and experience with effective control strategies and mechanisms has increased significantly. We are now at a point where implementation should proceed in identified water bodies seriously impacted by nonpoint sources. The major question facing us is how to accomplish this in the most effective and efficient way possible.

EPA recently met with representatives of Federal agencies, State and local governments, conservation districts, and environmentally concerned interests to discuss how we should all proceed in identified water bodies. There appeared to be a consensus on two major points.

First, Congress provided under the Clean Water Act that State and local governments should have the major implementation responsibility. They unquestionably have a broader range of authorities, such as land use controls, than exist at the Federal level. Their ability to use these authorities allows them to tailor nonpoint source control programs to meet their specific needs. Existing State programs have included both voluntary and regulatory approaches and appropriate financing mechanisms including fees and cost sharing.

Second, while States must have the lead on nonpoint source program development and implementation, EPA should provide a Federal overview and assure consistency of State approaches with Clean Water Act goals. The Agency also has a major responsibility to insure that the technical expertise and knowledge available at the Federal level through working on specific problems in local communities in different parts of the country is targeted and made available to other communities with similar problems.

This is really sort of a technology transfer or technique transfer approach which we think is the proper role for EPA.

Senate bill 431 addresses nonpoint source problems by providing $52 million over 4 years to assist in the establishment of pollution control management mechanisms in the Chesapeake Bay and $6 million to assess the principal factors having an adverse effect on environmental quality of Naragansett Bay. I discuss both of those in my testimony, Mr. Chairman, and suggest those to you.

In conclusion, I have focused my remarks on what I believe are the key reauthorization issue. I have not discussed a number of other issues raised in both Senate bill 431 and the administration proposal. As I said, I think each of these need to be addressed. The issues that I haven't addressed need to be handled in the reauthorization process. I hope, as I said at the outset, Mr. Chairman, that there will be a continuing dialog between me and the committee, and between the staff of EPA and the staff of this committee in attempting to draft legislation that will address our urgent problems.

Certainly we are all pledged to do whatever we can to help this committee in its important work.

Senator CHAFEE. Thank you very much, Mr. Ruckelshaus.

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We have two members who have joined us, Senator Moynihan and Senator Simpson. Gentlemen, do either of you have statements?

Senator MOYNIHAN. Let me welcome Mr. Ruckelshaus in his confirmed condition.

Senator SIMPSON. In the confirmed condition. I hadn't thought of that.

No, Mr. Chairman. I won't take the time of the subcommittee to give an opening statement, I will enter one in the record.

[Senator Simpson's statement follows:]

OPENING STATEMENT OF HON. ALAN K. SIMPSON, U.S. SENATOR FROM THE STATE OF WYOMING

Mr. Chairman, it is always good to hear from Bill Ruckelshaus, because he always states the problem succinctly and cogently and because it is obvious that he has thought about what he is saying—and that deliberate, thoughtful analysis is comforting to me. He has a reputation for carefully considering his actions before they take place.

Today I would like to make a few brief comments about the subject of this hearing—the Clean Water Act. As a westerner, I am acutely aware of the need to keep water clean and of the need to clean up contaminated water. Water is a precious resource in the West, and most Western States have been active in protecting and cleaning up the lakes and rivers of the West. In many ways we are fortunate in the West because the sources of many of our major rivers and streams are found there—they begin as springs or tiny trickles in the high mountains—crystal clear they rush down to the agricultural lands below—most of our water is relatively unpolluted with industrial contaminants. However, we have our problems, evaporation, silt, salt, contribute to the degradation of water in the West. Some water is used over and over as it moves downstream through irrigation ditches and canals.

In the West—the goal of zero discharge may be looked at most skeptically, because of the workings of individual State water law and the doctrine of appropriate water rights. I trust that Bill Ruckelshaus will take into account the very diverse geographic, climatological, and legal environments that make up the Western United States when making policy regarding how the Clean Water Act is administered. Resolution of State-Federal conflicts can better be addressed in the context of variations in State water law and geographic conditions. While the zero discharge goal is commendable as a goal—it should be realized that it may not be attainable in the real world in every case.

Another area of discussion that deserves comment is the concept of Federal common law. The committee has heard volumes of testimony on this topic and it was patently clear that there is no need for any extensive Federal common law language to be added to the Clean Water Act. Citizens of this country have their rights more than adequately protected, especially in regard to the national pollutant discharge elimination system permitting process. Citizens may submit comments on the draft permit—and this includes downstream users. In addition citizens may submit oral or written statements during the comment period or during public hearings. Citizens are further protected because EPA must give public notice of its tenative decisions to grant a permit, EPA must make available a factsheet enumerating the policy questions involved in the permit proces and EPA must make available to the public a written response to comments on the draft permit.

The Clean Water Act statutes provide for an adequate regulatory structure for the protection of public health and the prevention of public nuisances through public participation in the rulemaking and permitting process. Every effort should be made to protect citizen rights as well as the rights of States and nothing in the testimony this committee received has convinced me that there is a need for Federal common law language in the Clean Water Act.

We have seen great strides in cleaning up this Nation's rivers and lakes. That progress has come about largely because of the Clean Water Act. Even through progress has been made, there are still problems that need to be tackled. The control of nonpoint sources of pollution is one of the tough issues that remains to be dealt with.

The Clean Water Act is an example of environmental legislation that has worked, with relatively few tangles. There is indeed room for improvement, and that is what

the committee is shooting for. I thrust that the remarks made by Bill Ruckelshaus today will be most helpful in this effort.

I would like to thank my friend Senator Chafee and his staff for their ability to work with others and for Senator Chaffee's genuine interest and involvement in this legislation. You have done a yeomans work on this issue, John, and we all are very appreciative.

Mr. Chairman, I have a few brief questions to ask of Bill Ruckelshaus, and I will submit some in writing as well.

Senator SIMPSON. I just want to inquire and will at the appropriate time on the issues that affect some of the Western States that do not really affect other areas, urban versus rural and you are sensitive to those things. I know you are. Adequate regulatory structure throughout the States sometimes has a rather grevious impact on some of the Western States. Zero discharge is a very worthy goal and sometimes unattainable in certain areas of diverse geographic climate and environment of the Western United States.

I will inquire on some of those. But it is very nice to have you here before the committee and I commend you on your very serious and sincere efforts to restoration and healing at your agency.

Senator CHAFEE. Fine. First, Mr. Administrator, we will be having a markup on the 16th and 22d before the subcommittee and we would like you to have some representative of your agency here. Will that be Rebecca?

Mr. RUCKELSHAUS. Yes.

Senator CHAFEE. We look forward to your being here to help us as we mark up. Second, I would like to discuss the last points you were dealing with, nonpoint sources. When we started this I was of the feeling that wrestling with nonpoint sources was too much of a task for us. I thought we might be getting into too much. But we had some excellent testimony which your folks perhaps have had a chance to review. I have become more convinced that we should do something about it. I think the points that you made that this has got to be done primarily on the local level, or on the State level has merit.

I don't think we, from up here or EPA, can have the major role in it. However, I think as you point out some expertise and knowledge can be helpful. It seems to me it involves the agencies that you talked about, and of that of course is the Agriculture Department as well as the conservation districts. Have you had any chance to speak with the Agriculture Department people on this?

Mr. RUCKELSHAUS. No. I have not, Mr. Chairman. I do know that our agency has been working very closely with the Agriculture Department in many of these areas. Much of the good that has been done in the soil erosion problem for instance is a result of activity on the part of the Agriculture Department.

Senator CHAFEE. We had the suggestion in the testimony that for instance as they get into the PIK program, they are really into it now, if some attention can be paid to setting aside those strips of land that are adjacent to rivers or tributaries, that that in itself, small though it seems would be a massive step toward the solution of this nonpoint source agriculture runoff.

Mr. RUCKELSHAUS. There are some clear economic gains in farming from the control of soil erosion so that we have not only the incentive in terms of the public value of protecting water quality but also in protecting the topsoil of the farmers that work toward

some controls. We do still have the runoff problem associated with agricultural activity and the pesticide problem that we need to be careful to address.

Senator CHAFEE. Somehow I think it should be tied in with that very problem of the loss of the topsoil. How we do it I don't know. I think that it is going to require some money as an incentive. The testimony we had from the Maryland people was that a very modest amount of money went a long way in this area. The State of Maryland has put up $5 million and has received an awful lot of promise. They are not going to do it voluntarily in most instances. They are prepared to do it but they want some kind of incentive.

I don't have a solution to this. But my point is that it is a lot more feasible than I thought as we started out on these hearings last month.

I would like now to go to pretreatment. It seems to me that the waiver business, in other words the opt out waiver, is going to consume an awful lot of resources of your agency in trying to handle those waivers. What do you say to that?

Mr. RUCKELSHAUS. That is true. Any waiver provision that we were to come up with, Mr. Chairman, would be resource intensive as far as the agency is concerned. It would cause more resources to be devoted to it at the State level as well. I certainly wouldn't deny that. I guess my own feeling is that we should think about it in terms of the potential cost to the society of a pretreatment program. Had we devoted those resources over the last 10 years toward understanding better what this program might be and how we could efficiently and effectively develop a pretreatment approach that both achieved all of the goals, namely the protection of the sludge, protection of the plant itself, and protection of water quality, we might well be able to have a very effective program which at this point would not cost us as much as a categorical approach might.

My problem is I can't give you the numbers on what the categorical limits approach will cost. I wish I could, but I don't have those numbers.

Senator CHAFEE. I started out being rather enthusiastic about the opt-out provision and got less and less enthusiastic as the hearings moved along and almost come to the conclusion that why not leave everything as it is under the pretreatment? Why go to the opt-out? I know the big cities like that. But they want to go with it, but I just saw all kinds of problems. If you have a strong argument of why we should preserve an opt-out——

Mr. RUCKELSHAUS. I have a strong conviction. I am not sure I have a strong argument, Mr. Chairman. My conviction is that with this categorical limit approach we are going to both under and over control. I am convinced of that. Where we under control, we will have to go to the next stage, controlling the discharge of toxics out of POTW's through some system just as we are going to have to go to some system for controlling toxics after we have gone to BAT for direct discharges if there is inadequate control there.

That system will probably necessitate a better understanding of the relationship of those toxic substances to designated water uses, some better understanding of how we could control those into publicly owned treatment systems. If we had that information now, I

think we could work back toward a pretreatment system that would be cost effective. That is my frustration. That is why I am reluctant to give up at this point in attempting to develop a pretreatment system that would work.

I recognize fully its complexity. I have been over a whole lot of options with the staff. They have been over a lot more options that I have. What we are lacking right now is a data base that would give us the kind of assurance so that we could provide a system that would at the same time we achieve it with these categorical limits also designate a level of treatment that would preserve these water quality uses.

Senator CHAFEE. My time is up.

Senator Stafford?

Senator STAFFORD. Thank you, Mr. Chairman.

Mr. Ruckelshaus, in your testimony you stated that compliance deadlines should take into account time for promulgation of effluent limitations guidlines and also time for writing permits based on those guidelines. Your comments really raise three questions in my mind.

The first one is, Do you expect to meet with the President's schedule for promulgation of standards?

Mr. RUCKELSHAUS. The current date is July 1, 1984 for all of them. It is my understanding that of the 26 that we are under the court order to meet, we expect to meet them all with the possible exception of one. I am relying very heavily on the assurance of my staff to make that pledge, Mr. Chairman, but we are going to do everything we can to meet that schedule.

Senator CHAFEE. I missed that answer. You are going to have all of your compliance, guidelines——

Mr. RUCKELSHAUS. Effluent guidelines are scheduled to be completed by July 1 of next year.

Senator CHAFEE. July 1984?

Mr. RUCKELSHAUS. 1984.

Senator STAFFORD. What is your present schedule for writing permits based on the guidelines that are evolving?

Mr. RUCKELSHAUS. I am informed that it takes, on average, about a year to write a permit once we have the effluent guideline in place.

Senator STAFFORD. The obvious third question is, Would the schedule be accelerated if the agency had additional resources?

Mr. RUCKELSHAUS. The schedule for permit writing?

Senator STAFFORD. Yes.

Mr. RUCKELSHAUS. We have a backlog of permits which will probably take us some additional resources to work through. Whether that applies to the permits associated with these effluent guidelines or not I guess is a question of priority that we set as an agency. I believe that where we need to address the toxic substances problem which the BAT guidelines are aimed at that should be a very high priority in the agency.

So probably we will devote our resources to those permits first. Becky, I don't know—I am informed that is a correct answer.

Senator STAFFORD. The consent decree required EPA to identify toxic hot spots, that is, water bodies that will not attain the goals

of the act after the application of technology based standards due to excessive discharges of toxic pollutants.

My question is what is the status of this program and do you believe it is important to identify such areas and then to expedite pollution abatement activities affecting them?

Mr. RUCKELSHAUS. Given the court order and the requirements that we have, Mr. Chairman, Senator Stafford, there is no doubt that there is a high priority on this. It is important to it. I am going to ask Becky to go over with you what we are currently doing to comply with that requirement.

Ms. HANMER. This is on the toxic hot spots. We did a desk-top study and identified 34 areas where we thought there was going to be need for additional toxic controls beyond the BAT. This was just a desk-top study.

Since then we have been doing follow-up studies to try to determine whether or not our initial impression was right. So far in 14 of those 34 areas, we think that the categorical standards will either meet the needed controls or will have nearly met them. We are continuing to study the rest.

I want to add, though, that we are not going to rely merely on desk-top studies to determine whether or not we need more control over the toxics in issuing these permits. We have biological screening methods for toxic assessment and we will be identifying particular areas and particular categories of discharges where we may want to do biological screening at the individual discharge points to determine the need for additional toxic controls.

Senator STAFFORD. Thank you, very much.

Thank you, Mr. Chairman.

Senator CHAFEE. Senator Moynihan?

Senator MOYNIHAN. Mr. Chairman, I have only a brief query, more to apprise Mr. Ruckelshaus of the matter than to ask any definitive response and I suppose technically this is the Safe Drinking Water Act.

You raised the question of the nonpoint sources of pollution. I was wondering if you are aware that we have in the committee legislation that we have been looking at for about 3 years now that has to do with the question of sole source aquifers.

These are the single most conspicuous example of nonpoint pollutant problems. There are 12 identified by EPA around the country. They involve a very considerable number of people. It would be our hope that our legislation deals with the question of land use planning on the surface of the aquifer, involving the Federal and State and the local governments to see if by such management you don't get the kind of problem which in a sole source aquifer can become irreversable. And you abandon the site as it were as against, you know, let the stream flow a little longer and start again.

Have you been brought up to date at all?

Mr. RUCKELSHAUS. Yes. I am aware of this problem and of the committee's efforts to deal with it.

Senator MOYNIHAN. Does it make sense to you? I am not asking for a commitment.

Would you encourage us to pursue this?

Mr. RUCKELSHAUS. Certainly the way you have described it, it does make sense. We ought to try to do something with it. Precisely what the role of the various levels of government should be in this, I guess, is one of the issues that will have to be address so in the legislation.

Senator MOYNIHAN. That is a question of judgment but I think there are many of us that feel that here is a chance with really very small investment, avoid a very large problem in the communities as well as the country.

Could I take the opportunity, as I said I would not to feign innocence in this matter, to ask you, Have you been able to look into that other question of multisource or nonpoint or minipoint problems, PCB's in the Hudson River?

Mr. RUCKELSHAUS. Yes, I have.

Senator MOYNIHAN. Are you hopeful in this matter?

Mr. RUCKELSHAUS. I have not despaired, Senator, but——

Senator MOYNIHAN. You may be new to the subject. There are those of us who are beginning to wonder.

Mr. RUCKELSHAUS. As I mentioned to you a moment ago the problem is not only that source up river from the mouth of the Hudson but it is a multiple source down river as well which is contributing to the concentration of PCB's in fish in the lower part of the Hudson and as you are so much more familiar than me, there were efforts by the Congress to address the problem of removal of part of the deposits up river. That was shifted from a construction grant funds approach to the Superfund approach.

There is a study underway in region 2, in New York, to try to determine under the Superfund law how we should proceed. I have been briefed by the people doing the study in New York on where they currently are. In fact, I have even had, as he suggested, a helicopter tour of many of the other sources of PCB's or suspected sources of PCB's down river. It is a continuing concern and one that will be addressed, first, by region 2 in New York and, then, submitted to me for some kind of judgment.

Senator MOYNIHAN. Could you give us some notion of when you hope to have a decision on your desk?

Mr. RUCKELSHAUS. It is my understanding that they expect to have some recommendations to me by August.

Senator MOYNIHAN. Could I ask one other thing?

Are we learning something different and new?

As you know, the PCB's in the Hudson River below Fort Edward were dumped there by General Electric Co., in a very fixed set of time. We know when. We know how much, and so forth.

Are you beginning to find out that PCB's are in effect a pervasive toxic that you find in a lot of places, not just where they were particularly manufactured?

Mr. RUCKELSHAUS. In a lot of places, yes.

Senator MOYNIHAN. They will come out of drainpipes or sewer systems?

Mr. RUCKELSHAUS. It was the disposal of a lot of transformers, I guess, that had PCB's in them. Like these toxic dumps, we are finding that transformers were put into areas where they shouldn't have been and we are now finding problems.

Senator MOYNIHAN. This is a much more generalized problem than we may have thought.

Mr. RUCKELSHAUS. I think that is a fair statement.

Senator MOYNIHAN. We don't deal with much good news around here. But I look forward to that in August. That is not that far away.

We thank you, very much, for your concern.

Mr. RUCKELSHAUS. Thank you, Senator.

Senator CHAFEE. Senator Simpson?

Senator SIMPSON. Thank you, Mr. Chairman.

Let me ask, if I may: Last October 29, there was an EPA revision to the regulation governing the way in which the States set water quality standards and I am sure there was a reasonable intent behind that proposal.

It sparked a tremendous controversy at that time. Can you offer us your thoughts, now, perhaps?

You were able to look back. I know you weren't involved, but why this proposal may have generated so much heat?

Mr. RUCKLESHAUS. I think part of it had to do with the climate that existed and part of it had to do with the proposal itself, Senator. The use of a cost-benefit analysis for the downgrading of standards themselves by the States as proposed in the water quality standards regulation of last October was a cumbersome approach, I think. There are undoubtedly situations that exist in the country, some of which I am familiar with, where it is probably not possible to achieve the goal of fishable and swimmable waters in the statute within any reasonable timeframe. This may be due to natural causes, manmade causes, or other kinds of things in waterways that make it very difficult to achieve those goals. And the States, having adopted as standards those goals set in the statute, now in some instances are caught by the regulatory process in trying to figure out what they ought to do about discharges, whether municipal or industrial, and one of the approaches available to them is to downgrade the standard in terms of the designated uses of the stream to be more consistent with what is in fact reality.

There are provisions currently in the standards regulation to achieve that. Those provisions may have been improperly promulgated. So we have to come out with replacement provisions to achieve that necessary state of relief.

The proposal that was made triggered a tremendous outcry. I mentioned in my statement that there were some 1,400 comments received.

The other provision in the standard that created an outcry had to do with the treatment of the nondegredation issue. You had, for instance, a standard of dissolved oxygen of five in a stream that you were at a supersaturated level so that you could take additional BOD in terms of a discharge into a given stream, under what standard should a State permit that stream to be degraded?

Under the current standard you had to show a widespread and substantial economic effect in order to downgrade the standard. There have been several cases in which that has happened.

You still have to keep it above the designated use so the fish are protected in the water. Again, there was a cost-benefit analysis standard provided in the proposal which made it difficult to imple-

ment, and this, I think, caused a lot of outcry among a lot of people.

What we have pledged to do is to review very carefully those standards as proposed as well as the comments that have come in, and see if we cannot make them more consistent with what many members of this committee believe are the goals of the act so that we don't do violence to it—ranging all the way to withdrawing those standards which some members of the committee suggested we do and starting over.

The problem I have with the first one that I mentioned of withdrawing it, is we have to publish something. We don't have the standards in place as a result of improper initial promulgation. So I am a little reluctant to withdraw that, if, in fact, we could make it consistent with what this committee and others believe would be consistent with the goals of the act.

Senator SIMPSON. Indeed you have reviewed those comments and are in the process of where to go next on that issue. I look forward to what you might recommend as you go through that.

Certainly, you will be able to identify the areas of major controversy in there and we will want to have your knowledge.

Just another question. It comes with this area of Federal common law. We know we have these proposals, to reverse two Supreme Court decisions which held that the passage of the Clean Water Act made it unnecessary and improper for Federal judges to develop judge-made common law remedies in the water pollution area.

I would inquire as to whether you support and intend to revive the Federal common law of nuisance in the area, what effect do you think, then, the revival of the common law would have on the implementation of the Clean Water Act?

Senator CHAFEE. We have just 7½ minutes left to go and vote and you are opening up a major area, I think. It can't be dismissed with a three-word reply.

Senator SIMPSON. The time ran through the tube there.

Senator CHAFEE. Why don't we recess now and go and vote and then have an answer to your question on the return; is that satisfactory?

Senator SIMPSON. Great.

[Brief recess.]

Senator CHAFEE. We will continue.

Hopefully, we will have no more rollcall votes.

Senator Simpson, are you ready for your answer?

Senator SIMPSON. Yes, Mr. Chairman.

I would appreciate any response that the Administrator might render to that on the issue of Federal common law.

Mr. RUCKLESHAUS. Senator, there are a couple of problems that I see with the Federal common law. The *Milwaukee* case and the *Sea-clam* case that you mentioned were handed down by the Supreme Court in effect said that the Clean Water Act preempts the field for the assertion of Federal common law rights by individuals or States. The creation by the Congress of an administrative proposal dealing with problems associated with water pollution therefore, preempted the assertion of a Federal common law right by an institution or individual.

This, in effect, precludes any individuals from asserting damages and requesting compensation under some theory of Federal common law. Individuals and States do, of course, have rights under the Clean Water Act, to force compliance with the law itself through the citizen suit provisions and through other mechanisms, both administrative and through the courts.

The question of whether the law properly provides for compensation for individuals who are injured as a result of water pollution discharges is not addressed in the Clean Water Act.

There are remedies available to individuals on the Clean Water Act but compensation is not one of them. Attempting to provide for compensation by simply legislating that Federal common law shall be applicable is one approach that has been suggested.

I don't know how you write the statute to provide that that approach won't in effect layer the common law on top of the Clean Water Act and cause a lot of complexities to occur. For example, you could provide that a remedy only applies when there is noncompliance with the law as opposed to when somebody is complying, but that gets to be a difficult thing to administer. There are all kinds of noncompliance under these laws. As a practical matter in many cases a regional administrator or the State agency or even the local agency will be working with the municipality or an industry that is out of compliance.

There can be a lot of reasons why they are out of compliance, some legitimate, and if you provide a right of compensation on top of that in some way, it can get to be a very complicated thing to administer.

I guess I am sympathetic with those who have been injured, either in their person or property by a discharge into a waterway. But I don't think that the general adoption of Federal common law is the way to approach it.

If we can identify carefully those injuries you want to protect, it is conceivable that there is some way to do it under the Clean Water Act; but I think just a blanket reauthorization or reinstitution of the Federal common law of nuisance on top of the Clean Water Act could cause real problems.

Senator SIMPSON. Mr. Chairman, if I might, just a final comment that I don't think needs a response. I do thank you.

Some of the proponents of reviving that Federal common law believe the act doesn't have adequate remedies for downstream States in cases of interstate water pollution.

If that were the case, and, as you indicate, indeed there are remedies, extraordinary remedies under the act itself and very precise, but if that were the case, would you think it would be more preferable to just simply strengthen the remedies available under the Clean Water Act to the downstream States rather than go off into this rather extraordinary proposed relief?

Mr. RUCKELSHAUS. Yes. I really think so, Senator. I think Congress has asserted jurisdiction over this problem, and has tried to fashion a regulatory system to deal with it. An addition to that system, then, which would throw back to the courts the responsibility to take care of the compensation kinds of problems not dealt with in the act seems to me to provide a level of complexity and to

insert judicial judgment in an unwise fashion in an area where the Congress has already inserted its judgment.

Senator SIMPSON. Thank you, Mr. Chairman.

Thank you, Bill. I wish you well as you continue your great efforts and, you, Mr. Chairman, thank you for what you do on this issue and your genuine interest and patience and your yeoman's work.

We are all appreciative of the way you pursue it.

Thank you.

Senator CHAFEE. Thank you, Senator Simpson.

You raised a good point here in getting into this common law problem because it is one that several members of the committee have strong feelings about.

It is going to be difficult, when we come to the markup, of just how to handle that.

Mr. Ruckelshaus, is it still the administration's position that you do not seek any changes in section 404, namely, the wetlands dredge and fill provisions?

Mr. RUCKELSHAUS. No, we do not, Mr. Chairman.

Senator CHAFEE. I understand the Corps of Engineers has proposed some regulations and it is my understanding that you, EPA, will be commenting on those.

Mr. RUCKLESHAUS. That is right.

Senator CHAFEE. When you make your comments, do you have to clear them with OMB; certainly you don't have to clear them with Mr. Gianelli?

Mr. RUCKELSHAUS. No. We don't have to clear them with OMB, Mr. Chairman. I might give you some information on what I think is some progress in this whole 404 that area. There was, as you were aware I think, a question whether the guidelines EPA was to issue were mandatory or discretionary in terms of their effect on what the corps does in issuing a permit.

I think we now have a general agreement that those guidelines are mandatory. We are going to get on with the process of drafting those guidelines so as to fashion an overall regulatory program that works, that does in effect achieve the joint responsibilities of the EPA and the corps over 404 that Congress has given.

It is my responsibility, and the responsibility of Mr. Gianelli and the corps is to jointly administer this program; so that our guidelines and their regulations have to be harmonized and so that both of us can discharge our responsibilities, as spelled out under section 404 and his as permitting authority.

I think that is a step forward in terms of the relationship between the two agencies.

Senator CHAFEE. I had not looked on this as such a big problem, at least it certainly wasn't a big problem until Mr. Gianelli came on the scene.

We have been dealing with this since I have been here, 6½ years now. It seemed to work out quite well in which EPA would set forth the guidelines and then it was a cause to carry out.

Obviously people don't want to carry them out or fight the problem. Then there can be difficulties between your agency and the corps. But absent that, the desire not to go forward with it, and not be sympathetic with the goals of the program then it causes people

to make a lot of trouble. So I would hope that you are able to work this out satisfactorily without giving ground.

Section 404 has objectives to it. I would hope and I would appreciate it if you could send us copies of your comments.

Can you do that?

Mr. RUCKELSHAUS. Yes, We certainly will, Mr. Chairman.

Senator CHAFEE. I would hope that you would again, repeating what I said in my opening statement, look on this committee as an assist to you. We are not in any adversary position with you, as you well know, or your agency. We are here to achieve the goals of the act.

I would like to touch a little more on a matter that you and Rebecca discussed and see if I understand this. We are getting down to a situation of what we might call beyond BAT. You have toxic wastes. Toxic discharge. You have got BAT. It doesn't succeed in removing enough of the toxics so that you do not achieve the goals of the act. What do you do? What happens next?

Mr. RUCKELSHAUS. Why don't we let Becky spell out what our current approach is in dealing with this problem.

Ms. HANMER. Under the combination of section 301 and section 303, the place we would go for the additional controls would be the State water quality standards. Where the States have adopted particular numerical criteria for toxics, this has happened for some of the heavy metals and in a few States for pesticides, we would make a calculation as to whether or not the treatment required by BAT would or would not achieve that limit. If we made a calculation that did not achieve that limit, then we would be looking for additional control for that particular toxic.

Senator CHAFEE. Let's take that situation exactly?

Ms. HANMER. Where there is a numerical water quality criterion already adopted in the State water quality standards.

Senator CHAFEE. Not being met by BAT?

Ms. HANMER. That is correct. We believe there is obviously some prediction involved in this and some rather complicated engineering analysis involved but to the extent that we could figure this out, this would be in the next round of permits we write. The so-called second round permit will contain not only the requirements to satisfy the technology guideline but would also contain additional requirements if we could identify that they were needed.

Senator CHAFEE. When you said the second round of permits, you mean 5 years has gone by?

Ms. HANMER. I am sorry. What we call the second round permits are where the industrial permits implement best available treatment—so the next set of permits we are going to issue, what we call the second round of permits, to the extent that we can figure this out, to the extent that we can identify the need for additional toxic controls and identify what those are working with the States, we will write into this next round of permits such additional controls as may be necessary to satisfy either the numerical State water quality standards or the more general standard.

I will speak to that.

Senator CHAFEE. In other words, you will impose a standard that is greater than BAT?

Ms. HANMER. Under section 301, we believe that that is our duty. Section 301 says that the permits must incorporate both the requirements necessary to meet the technology guidelines and such additional requirements as may be necessary to meet the water quality standards, both. That has been our common practice but we have not been doing it for toxics. Thus far it has basically been limited to conventional pollutants. In fact, it is from that operational mechanism that all of your advanced waste treatment projects come from. Advanced treatment projects by their very nature represent the application of both technology requirements and additional requirements to meet water quality standards.

Where the State has not adopted a numerical set of toxic limitations, we don't think that we are without a control remedy. Every State standard has in it a narrative standard that says there shall be no toxic discharges in toxic amounts. So in addition to applying those numerical criteria that exist, we would also be looking at those geographic areas; where there are very complicated and complex toxic problems, or particular industries where we feel BAT may not be sufficient. For those we will be looking at biological screening techniques, including biomass screening techniques, that might identify toxicity that is not controlled by the BAT guidelines.

In those areas where we know already we have to go beyond the BAT requirements we will build those additional limits into the next round of permits. In those areas where we think we have got a toxic problem, but we are not certain, we can put into the permit a study requirement or a requirement to do biological screening and to identify additional toxicity and then to work with the permitting authority either in EPA or the State to identify the toxicity and identify what needs to be done to control it.

Senator CHAFEE. BAT had us worried, is that the other alternative to lower the water quality standard?

Ms. HANMER. That was certainly not a general way of approaching this problem.

Senator CHAFEE. What is the polluters' attitude when you get into this going beyond BAT?

Ms. HANMER. It depends on how much it costs. The polluter could be very unhappy and he would challenge the permit. We have mechanisms for challenging the permits, including holding hearings, and it would be in that context.

Senator CHAFEE. How many toxic standards are there?

Ms. HANMER. We have established criteria, human health-related water quality criteria, I think for 64 of the 65 toxics and applied aquatic life criteria for a number of those categories. But the States have not taken—21?

Mr. RUCKELSHAUS. Twenty.

Ms. HANMER. But the States have by and large not taken and implemented our guidelines.

Senator CHAFEE. We will allow a certain latitude here.

Mr. RUCKELSHAUS. Twenty-one—sixty-four is right, twenty-one is the aquatic life criteria.

Senator CHAFEE. Let's review the bidding. How many toxic standards are there?

Ms. HANMER. We are talking about the categories of toxic pollutants identified in the act. Of these categories, we have set aquatic

life criteria for 21 of those, I am informed by my boss, and I understand from staff for 64 of those categories we have established human health criteria based on hypothetical risk assessments. In order to be used in a permit, however, those criteria would have to be adopted as part of the State water quality standard. When you take our criteria, which were developed in the laboratory and apply them in the real world, there is an analytical process that needs to take place to adopt the criteria to the conditions in the real world. The States also have the option of taking our criteria and adopting them in a blanket fashion, but this is where you will get challenges, where States have just adopted our number without doing any kind of analysis to determine whether they are appropriate. This is where a discharger will come in and say, I know that this is the laboratory number and the Mississippi assimilates a lot and it ought not to be that number. But in some cases the States have taken the criteria and done their own work, such as California, and have adopted toxic standards of their own. But by and large the States have not done this yet.

Except for some heavy metals and for a few pesticides, by and large we would simply be relying on the general standard that says we prohibit toxics in toxic amounts and we would be applying certain testing methodologies to that general standard to try to get at what is toxic.

Senator CHAFEE. We have a couple of questions from Senator Symms and Senator Stafford which we would appreciate it if you would respond to in writing if you would Mr. Administrator.

Mr. RUCKELSHAUS. Sure.

[Responses to additional questions follow:]

QUESTION: Some Western interests have expressed serious concern about the way the CWA is being interpreted by EPA in western states. Would you please comment on the following specific concerns:

(a) that the goal of "elimination of discharge of pollutants" is being interpreted to preclude the return of process water to a stream, regardless of its pollutant characteristics.

(b) that EPA requires permits for discharges from diversion channels around mining sites that are designed to prevent snow-melting runoff from entering the site.

ANSWER: The goal of eliminating all discharges is an admirable one and of course we will continue to reduce discharges as much as possible. Actual discharge limitations, however, are based on technology and water quality considerations, not this broad policy goal. Only when the total elimination of a discharge is possible through application of BPT or BAT, or where it is required to meet water quality standards would such a limit be imposed. In short, the statutory goal will not be used to preclude discharges which are otherwise allowable under the Act.

Current NPDES regulations do require permits for diversion devices constructed to prevent snowmelt from contacting process areas. These regulations were written to provide comprehensive coverage of navigable waters. However, EPA has proposed amendments to these regulations which would limit the types of diversion channels whch require permits. Under the proposal only contaminated snowmelt which is considered to present environmental problems would require a permit. Examples of contaminated snowmelt would include run-off which comes into contact with process waste or toxic or hazardous pollutants. Under this scheme many diversion devices constructed to prevent contamination would not need a permit. EPA is currently examining public comment on this proposal.

Senator CHAFEE. I think that is all we have. We appreciate your being here. We look forward to your being here Thursday.

Thank you very much for coming.

[Whereupon, at 5:30 p.m., the subcommittee hearing was adjourned.]

[Mr. Ruckelshaus' prepared statement follows:]

TESTIMONY OF
WILLIAM D. RUCKELSHAUS
ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

JUNE 14, 1983

Good afternoon, Mr. Chairman and Members of the Subcommittee. It is a special pleasure to be here today. This hearing marks my first appearance before Congress in my second tour of duty as Administrator of the Environmental Protection Agency. I thank the Members of this Subcommittee for your support and confidence. As Administrator, I will do everything I can to uphold the vital public trust that you have placed with me.

During the course of your hearings on the Clean Water Act, you have heard from numerous groups and individuals representing a wide spectrum of interests and views. In reviewing these efforts, Mr. Chairman, and trying to determine where to begin today, I noted that last year this Subcommittee compiled a report containing over 1300 pages of statements, testimony, and detailed facts and figures on the Nation's water quality problems, on progress to date, and on the issues that need to be resolved to ensure further progress in water pollution control.

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To assist in this major effort, Mr. Chairman, I would like today to provide the Subcommittee with the Administration's legislative recommendations for the Clean Water Act's reauthorization. A copy of those recommendations is attached to my testimony.

I have reviewed those recommendations, and while I did not participate in their development, it is clear to me that they raise a number of issues which I think we all can agree need to be addressed in this reauthorization process. Certain of the provisions in the Administration's package address questions that are also taken up in S. 431 and S. 432. Between S. 431, S. 432, and the Administration's proposals, the key issues to be addressed have been clearly defined. Today, in the interest of time, I would like to focus my remarks on what I believe are the most important issues.

With respect to the underlying purpose and direction of the Clean Water Act, I believe that the control strategy set out by Congress in 1972 and 1977 has worked. Having had first hand experience with the background and origins of this legislation, there is no question in my mind that we have seen impressive progress over the past decade. The Act's general approach of requiring implementation of nationwide technology-based effluent limitations followed by any needed controls based on site-specific water quality concerns should be continued.

The control measures adopted since the 1972 Act's passage have made substantial inroads in reducing pollutant loadings and improving water quality. A majority of the industrial discharger categories have now installed, or are in compliance with schedules to install,

best practicable treatment (BPT) technology. A 1980 Agency report on monitoring and information management indicates that the major industrial control achieved through this treatment will reduce significantly the loadings of four key pollutants: biochemical oxygen demand by 69 percent; suspended solids by 80 percent; oil and grease by 71 percent; and dissolved solids by 52 percent.

On the municipal side, while progress has not been as dramatic as on the industrial side, a majority of POTWS have now achieved secondary treatment and the others are on schedules to do so. Thirty-five States are now administering the National Pollutant Discharge Elimination System (NPDES). And the Agency itself, after some initial delays, is now making major progress in developing and issuing best available technology (BAT) effluent limitations guidelines which are the basis of the toxics control strategy envisioned by Congress as the next step beyond BPT.

Of course, the fact that substantial water pollution control progress has been made to date does not justify ignoring problem areas that are apparent to those familiar with this statute. The most critical of these problems are directly addressed by both the Administration's proposals and the recommendations contained in S. 431 and S. 432. I hope that in discussing the major questions before the Subcommittee, today, we can build on the reauthorization process begun last year and quickly complete the development of effective solutions to those problems.

The Clean Water Act, as passed in 1972 and amended in 1977, embodies six critical components: 1) nation-wide technology-based guidelines, 2) water quality standards to supplement them, 3) a

national permit system to implement both technology-based and water quality standards, 4) an enforcement mechanism to assure compliance, and 5) a non-point source program to address remaining sources of pollution. The sixth component is the construction grants program which was reauthorized in 1981. The major questions we face today lie in these first five areas, and I will concentrate on them this afternoon.

1. Effluent Guidelines - Compliance Deadlines and Pretreatment

There are two issues presently before this Subcommittee that relate to the area of technology-based requirements: compliance deadlines for direct dischargers and pretreatment modifications.

Extension of the present July 1, 1984 industrial compliance deadline is an urgent issue addressed by all three Clean Water Act legislative proposals presently before this Subcommittee.

In setting the industrial compliance dates in the 1977 amendments to the Clean Water Act, Congress recognized that industry needs a reasonable amount of time after promulgation of a guideline to construct the necessary treatment facilities and come into compliance with the effluent limitations. Congress required Agency promulgation of guidelines by 1980, and recognizing the time necessary for permit issuance, required industrial compliance by July 1, 1984. In fact, Agency promulgation of guidelines was delayed and is not yet complete. As a result, the industrial compliance period has been drastically reduced.

Section 2 of the Administration's proposed amendment would extend the current deadline for industrial compliance with BAT and BCT effluent guidelines from July 1, 1984 to no later than

July 1, 1988. Where industrial BAT/BCT permit limitations are based on best professional judgement (BPJ), the compliance deadline would be extended until no later than three years after the permit issuance date. In many cases, through the "no later than" language, compliance can and will be required earlier where possible.

The proposal contained in S. 431 provides that BAT and BCT guidelines be met by July 1, 1987. S. 432 adopts a somewhat different approach to the extension issue. Senator Randolph's proposal contained in S. 432 applies not only to BAT and BCT, but also to BPT and BPJ limitations promulgated after January 1, 1982. For all of these limitations, compliance deadlines would be extended to forty-two months from the Clean Water Act's reauthorization, or thirty-six months after either promulgation of an effluent limitation or issuance of a permit.

In resolving the question of extensions, Mr. Chairman, I belive there are three objectives that any solution must address. First, any extension must recognize the time necessary to promulgate effluent limitations and issue permits. Second, the extension must contain a final compliance date which applies to all BAT/BCT related permits. Third, the language should provide clearly that if compliance can be achieved before the final date, then it must be. There is no question that some form of deadline extension is needed, Mr. Chairman, and I would like to offer whatever assistance the Committee may require in determining the most appropriate way to address that need.

Pretreatment, the second issue I mentioned in the area of technology-based standards, is a subject addressed by both S. 431 and the Administration's proposal. The fundamental objectives of this program under the Act are to protect water quality, protect municipal sludge from contamination by industrial toxic wastes, and protect the operation of the POTW itself. The need to achieve these goals is widely recognized and unquestioned. However, a major concern addressed by both bills is that there may be cases in which full implementation of pretreatment categorical standards may not be necessary to achieve the goals of the program. The difficult question we are all grappling with is how to address those cases without opening a Pandora's box of technical difficulties, serious resource demands, administrative problems, and scientific uncertainties, without delaying the program as it applies to those situations that need these controls.

As the complexity of the proposals before us suggest, there are no easy answers to this question. With your permission, Mr. Chairman, I would welcome the opportunity to work with you and your staff in crafting a waiver mechanism which will provide relief where justified, yet maintain the momentum and preserve the protection this program provides.

2. Water Quality Standards

Under the Clean Water Act, technology-based effluent guidelines are to be supplemented by State developed water quality standards. S. 431 contains a provision that addresses this area by requiring the maintenance of designated uses as they existed on January 1, 1983.

If the purpose behind this provision is to ensure continued progress toward the Clean Water Act's 1983 goal of fishable/swimmable waters, I certainly support that intent. If its purpose, however, was to restrict the Agency's flexibility in achieving the goals of the Act, I must tell you, frankly, that I have serious reservations.

The Water Quality Standards Program has been an integral part of the Clean Water Act since 1972. The staff informs me that with the emphasis and resources concentrated on developing and implementing technology-based guidelines and permits, ambient controls have not been a driving force behind most controls and, consequently, the standards have not been given the requisite attention. In particular, States received only minimal support in the scientific and technical direction they really needed to translate use designations and criteria into effective point and nonpoint source controls. With the establishment of technology-based limitations underway, the need for an effective water quality program to address those pollution problems continuing beyond technology-based treatment remains.

I have read this Committee's letter of March 14, and understand that one of the main reasons for the current wide-spread concern over water quality standards has been the Agency's October 1982 proposed rulemaking to revise the existing water quality standards regulation. As I understand it, one of the principal purposes of this proposal was to make the standards setting process a better and more effective decision making tool. Regardless of the Agency's intent, the proposed revisions apparently were viewed by the public as a retreat from the goals and objectives of the Act. The Agency

has received over 1000 pages of comments on that proposal. The bulk of those comments expressed concern not with the objective of providing more technical assistance and direction to the States, but with the specific provisions relating to the use of cost/benefit analysis and the proposed anti-degradation policy. Presently, those comments are being carefully reviewed, and I expect them to play a significant part in direction the final regulations should take. If my review of the Water Quality standards package indicates the standards should be withdrawn or that certain changes are necessary, we will do so.

3. Enforcement

The Clean Water Act will not work unless EPA and State enforcement efforts are vigorous and effective. Towards that end, there are two provisions of the Administration's proposal that I would like to emphasize this morning: administrative civil penalties and criminal sanctions.

a. Civil Enforcement

Presently the Clean Water Act provides two civil enforcement options. When faced with a violation of the Act, the Administrator may issue an order requiring compliance by the violator or the Administrator may bring a civil action in the appropriate United States District Court for penalties and injunctive relief.

Section 8 of the Administration's proposed legislation allows the Administrator a third option to assess civil penalties of up to $10,000 per day (not to exceed $75,000 total) for clear and well

documented violations of the Act. Under this approach, a violator would be given notice and an opportunity for a hearing, and if dissatisfied with the final assessment, he would be able to seek a review in United States District Court. The court review would be appellate in nature and not a de novo trial proceeding.

The addition of administratively assessed civil penalties as an enforcement tool gives the Agency more flexibility to deal with noncompliance situations. A non-penalty administrative order may be ineffective in resolving the problems and yet the option of taking judicial action may be unreasonably costly, burdensome, and time consuming for all the parties involved given the nature of the violation involved.

The Agency's experience to date with assessing similar civil penalties existing under other environmental statutes (CAA, FIFRA, TSCA, RCRA) indicates that this option will give EPA more enforcement flexibility, lead to speedier compliance, and assure due process without the expense and delay of a judicial enforcement action.

Section 8 of S. 431 addresses the area of civil enforcement as well. It proposes to increase the daily maximum civil penalty provided for under section 309(d) of the Clean Water Act from $10,000 per day to $25,000 per day. This is consistent with the provisions of the Clean Air Act and the Resource Conservation and Recovery Act. It strengthens existing enforcement mechanisms, and, therefore, I support it.

b. Criminal Enforcement

Knowing violations of the Act have caused serious environmental harm, millions of dollars of damage to private and public property. In some cases, they have raised the clear potential for loss of life and serious personal injury. A stronger criminal sanction is needed under the Clean Water Act to deter these violations.

The proposal we are recommending elevates penalties for knowing violations of the Act to the felony level and adds criminal sanctions to the Clean Water Act for persons who knowingly introduce into a sewer system or a POTW a pollutant or hazardous substance which causes or can reasonably be anticipated to cause personal injury or property damage. For those defendents who have complied with all applicable Federal, State and local requirements, an affirmative defense is provided.

The addition of these criminal penalties to the CWA will put violations of the Act on the same level as violations under RCRA. Currently, a knowing discharge onto the ground of hazardous wastes could subject the discharger to felony sanctions under RCRA. However, the same discharge into a sewer system or a POTW would only subject the discharger to the misdemeanor provisions of the CWA. The result is an unintentional incentive to dump hazardous substances into sewer systems or POTWs. The addition of these criminal sanctions will aid in protecting these sewer systems and POTWs in which substantial federal monies are invested.

Strong public support exists for aggressive enforcement action in cases of deliberate environmental misconduct. The addition of criminal sanctions to the Act for knowing, intentional

violations of the Act will reflect this public concern and should dispel any perceptions that the intentional violation of the Act is not a serious offense.

4. Permits

I discussed earlier the need to extend compliance deadlines to recognize the delayed issuance of effluent guidelines. The other major factor before compliance can be achieved is the incorporation of the guidelines and other limitations into permits.

The Administration is proposing that the current maximum 5-year term for an NPDES permit be extended up to a maximum of 10 years. Permits including waivers or modifications, however, would remain at 5 years. In addition, EPA and States could through regulations establish shorter maximum terms for other categories of permits that should be reviewed more frequently because of evolving control requirements, compliance difficulties, water quality impacts, or other special concerns. For those facilities with controls in place and good compliance histories, there is no need to review permit requirements as often as every five years. We recognize and intend that permits be reopened and modified as circumstances dictate.

For the Agencies issuing discharge permits, the extension of the permit term would, over time, reduce the annual permitting workload and help ensure that large backlogs do not accumulate in the future. This would allow more efficient and effective use of permitting resources.

The Clean Water Act, like other Federal environmental statutes, reflects the philosophy that States are the primary authorities to carry out pollution control programs. I fully support this approach and recognize the advantage of State and local leadership in this area. The NPDES program represents a success in implementing the State primacy approach as reflected by the fact that thirty-five States have approved NPDES programs.

Under the current Act, States are required to take over the entire NPDES program and may not assume responsibility only for parts of the program. Some States have simply been unable to assume administration of the entire permit program due to a division of responsibilities among State agencies, lack of experience, or lack of resources. The proposal contained in both S. 431 and the Administration bill will allow States to assume administration of significant, identifiable portions of the program or to move toward full administration on a step-by-step basis. This makes sense.

5. Nonpoint Source Pollution Control

A final issue I would like to address, Mr. Chairman, is nonpoint sources of pollution. I understand that the Subcommittee has been considering nonpoint source water pollution issues as part of its Clean Water Act reauthorization process. We support your interest and agree that nonpoint source problems must be addressed to the extent feasible.

When EPA first attempted to quantify nonpoint source problems in the early 1970's, we noted that there were billions of tons per year of soil erosion in the U.S. and a very high

volume of urban stormwater runoff. As our understanding has developed, we have attempted to go beyond the focus on total loads and concentrate instead on those specific cases where nonpoint sources must be addressed to both meet water quality goals and realize the full benefits of point source control investments.

With the establishment of technology based standards well underway, pollution from nonpoint sources represents a continuing water pollution control problem in some areas. The 1982 State water quality assessments report prepared under section 305(b) of the Act describes the nature of this problem: (1) in one-fifth of the States, nonpoint sources are now the most important cause of water degradation in those waters not meeting uses; (2) agricultural nonpoint sources are the major nutrient sources in lakes with eutrophication problems; and (3) of the 20 States which specifically quantified their progress towards the 1983 Clean Water Act goals, 15 (75%) list nonpoint sources as significant sources in their remaining problem waters.

Over the last decade, our understanding and experience with effective control strategies and mechanisms has increased significantly. We are now at a point where implementation should proceed in identified water bodies seriously impacted by nonpoint sources. The major question facing us is how to accomplish this in the most effective and efficient way possible. EPA recently met with representatives of Federal agencies, State and local governments, conservation districts, and environmentally concerned interests to discuss how we should all proceed in identified water bodies. There appeared to be a consensus on two major points.

First, Congress provided under the Clean Water Act that State and local governments should have the major implementation responsibility. They unquestionably have a broader range of authorities, such as land use controls, than exists at the Federal level. Their ability to use these authorities allows them to tailor nonpoint source control programs to meet their specific needs. Existing State programs have included both voluntary and regulatory approaches and appropriate financing mechanisms including fees and cost-sharing.

Second, while States must have the lead on nonpoint source program development and implementation, EPA should provide a Federal overview and assure consistency of State approaches with Clean Water Act goals. The Agency also has a major responsibility to ensure that the technical expertise and knowledge available at the Federal level through working on specific problems in local communities in different parts of the country is targeted and made available to other communities with similar problems.

S. 431 addresses nonpoint source problems by providing $52 million over four years to assist in the establishment of pollution control management mechanisms in the Chesapeake Bay and $6 million to " assess the principal factors having an adverse effect on environmental quality of Naragansett Bay". S. 431 also proposes a national study to review and consolidate in one place the significant learning and experience that has developed over the last ten years on the effects and methods of non-point source control across the country.

With respect to the Chesapeake Bay, the Agency is in the final stages of completing a 6-year study. The Chesapeake Bay Program has identified problems, conducted research, and is developing recommendations to preserve and enhance water quality in the Bay. During this year the Agency will complete and publish all remaining technical studies and four major reports describing our findings. We believe that no further resources are needed to complete the Agency's commitments in this area. Implementation should now proceed within the framework of the Clean Water Act, including EPA's overview responsibility for water quality standards, permits, and construction grants and provision of technical assistance. Regional EPA water programs staff will work with the States that are involved to assist their implementation of these findings in the years ahead.

With respect to Narragansett Bay, we believe the most appropriate federal role can be achieved in the context of the broader national study which is proposed in S.431. The more general national overview of non-point control, particularly if it is developed with technology transfer as a major objective, will allow the knowledge of what we have learned to date to be applied not only to the situation of Narragansett Bay but also to other areas in the country where serious problems have been identified.

6. Conclusion

In conclusion, Mr. Chairman, I have focused my remarks on what I believe are the key reauthorization issues. I have not discussed a number of other issues raised in both S.431 and the Administrations proposal. Clearly, these need to be addressed in this reauthorization process.

I hope that today we have begun what will be a continuing dialogue to address these remaining issues as well as the ones I have highlighted this morning.

This concludes my proposed statement. I would be happy to answer any questions you may have.